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Sequence Name: 2814
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QAAGRVDEYI VDSAKTLLSY MGIPFVDAPS EGEAQAAYMA AKGDVEYTGS QDYDSLLFGS
PRLARNLAIT GKRKLPGKNV YVDVKPEIII LESNLKRLGL TREOLIDIAI LVGTDYNEGV
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WAELKALAAC RGGRVHRAAD PLAGLKDLKE VRGLLAKDLA VLASREGLDL VPGDDPMLLA
YLLGPSNTTP EGVARRYGGE WTEDAAHRAL LSERLHRNLL KRLEGEEKLL WLYHEVEKPL
SRVLAHMEAT GVRLDVAYLQ ALSLELAEEI RRLEEEVFRL AGHPFNLNSR DQLERVLFDE
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GRLHTRFNQT ATATGRLSSS DPNLQNIPVR TPLGQRIRRA FVAEAGWALV ALDYSQIELR
VLAHLSGDEN LIRVFQEGKD IHTQTASWMF GVPPEAVDPL MRRAAKTVNF GVLYGMSAHR
LSQELAIPYE EAVAFIERYF QSFPKVRAWI EKTLEEGRKR GYVETLFGRR RYVPDLNARV
KSVREAAERM AFNMPVQGTA ADLMKLAMVK LFPRLREMGA RMLLQVANEL LLEAPQARAE
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120
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780

2040 atgtteggeg teeceeegga ggeegtggae eeeetgatge geegggegge caagaeggtg aactteggeg teetetaegg catgteegee cataggetet eeeaggaget tgeeateeee tacgaggagg cggtggcctt tatagagcgc tacttccaaa gcttccccaa ggtgcgggcc 2220 tggatagaaa agaccctgga ggaggggagg aagcggggct acgtggaaac cctcttcgga 2280 agaaggeget aegtgeeega eeteaaegee egggtgaaga gegteaggga ggeegeggag 2340 cgcatggcct tcaacatgcc cgtccagggc accgccgccg acctcatgaa gctcgccatg 2400 gtgaagetet teeecegeet eegggagatg ggggeeegea tgeteeteea ggtegeeaae 2460 gageteetee tggaggeeee ceaagegegg geegaggagg tggeggettt ggeeaaggag 2520 gccatggaga aggcctatcc cctcgccgtg cccctggagg tggaggtggg gatgggggag 2580 gactggcttt ccgccaaggg tcaccaccac caccaccac 2619 <212> Type : DNA <211> Length : 2619 SequenceName : 2816 SequenceDescription : Custom Codon Sequence Name : 2816 Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MGADIGDLFE REEVELEYFS GKKIAVDAFN TLYQFISIIR QPDGTPLKDS QGRITSHLSG ILYRVSNMVE VGIRPVFVFD GEPPEFKKAE IEERKKRRAE AEEMWIAALQ AGDKDAKKYA QAAGRVDEYI VDSAKTLLSY MGIPFVDAPS EGEAQAAYMA AKGDVEYTGS QDYDSLLFGS PRLARNLAIT GKRKLPGKNV YVDVKPEIII LESNLKRLGL TREOLIDIAI LVGTDYNEGV KGVGVKKALN YIKTYGDIFR ALKALKVNID HVEEIRNFFL NPPVTDDYRI EFREPDFEKA IEFLCEEHDF SRERVEKALE KLKALKSTLE EAPWPPPEGA FVGFVLSRPE PMWAELKALA ACRGGRVHRA ADPLAGLKDL KEVRGLLAKD LAVLASREGL DLVPGDDPML LAYLLGPSNT TPEGVARRYG GEWTEDAAHR ALLSERLHRN LLKRLEGEEK LLWLYHEVEK PLSRVLAHME ATGVRLDVAY LQALSLELAE EIRRLEEEVF RLAGHPFNLN SRDQLERVLF DELRLPALKK 540 TKKTGKRSTS AAVLEALREA HPIVEKILQH RELTKLKNTY VDPLPSLVHP RTGRLHTRFN 600 QTATATGRLS SSDPNLQNIP VRTPLGQRIR RAFVAEAGWA LVALDYSQIE LRVLAHLSGD 660 ENLIRVFQEG KDIHTQTASW MFGVPPEAVD PLMRRAAKTV NFGVLYGMSA HRLSQELAIP 720 YEEAVAFIER YFQSFPKVRA WIEKTLEEGR KRGYVETLFG RRRYVPDLNA RVKSVREAAE

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<212> Type : PRT <211> Length : 873

SequenceName : 2817 SequenceDescription :

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LATLAKKAEK EGYEVRILTA DKDLYQLLSD RIHVLHPEGY LITPAWLWEK YGLRPDQWAD

YRALTGDESD NLPGVKGIGE KTARKLLEEW GSLEALLKNL DRLKPAIREK ILAHMDDLKL 240

SWDLAKVRTD LPLEVDFAKR REPDREGEKP REEAPWPPPE GAFVGFLLSR PEPMWAELKA 300

LAACRGGRVH RAADPLAGLK DLKEVRGLLA KDLAVLASRE GLDLVPGDDP MLLAYLLGPS 360

NTTPEGVARR YGGEWTEDAA HRALLSERLH RNLLKRLEGE EKLLWLYHEV EKPLSRVLAH

MEATGVRLDV AYLQALSLEL AEEIRRLEEE VFRLAGHPFN LNSRDQLERV LFDELRLPAL

480 KKTKKTGKRS TSAAVLEALR EAHPIVEKIL QHRELTKLKN TYVDPLPSLV HPRTGRLHTR 540 FNQTATATGR LSSSDPNLQN IPVRTPLGQR IRRAFVAEAG WALVALDYSQ IELRVLAHLS 600 GDENLIRVFQ EGKDIHTQTA SWMFGVPPEA VDPLMRRAAK TVNFGVLYGM SAHRLSQELA 660 IPYEEAVAFI ERYFQSFPKV RAWIEKTLEE GRKRGYVETL FGRRRYVPDL NARVKSVREA 720 AERMAFNMPV QGTAADLMKL AMVKLFPRLR EMGARMLLQV ANELLLEAPQ ARAEEVAALA 780 KEAMEKAYPL AVPLEVEVGM GEDWLSAKGH HHHHH 815 <212> Type : PRT <211> Length : 815

SequenceName: 2819 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac 60 ggccaccacc tggcctaccg caccttcttc gccctgaagg gcctcaccac gagccggggc 120 gaaccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct caaggaggac ggggacgcgg tgatcgtggt ctttgacgcc aaggccccct ccttccgcca cgaggcctac 240 ggggggtaca aggcgggccg ggccccacc ccggaggact tcccccgcca gctcgccttg 300 gtcaagcggc tggtggacct tctgggcctg gtccgcctcg aggccccggg gtacgaggcg 360 gacgacgtcc tgggcaccct ggccaagaag gccgaaaagg aggggtacga ggtgcgcatc 420 ctcaccgccg accgcgacct ctaccaactc gtctccgacc gcatccacgt cctccacccc gaggggtacc tcatcacccc ggagtggctt tgggagaagt atgggcttaa gccttcccag 540 tgggtggact accgggcctt ggccggggac ccttccgaca acatccccgg cgtgaagggc 600 atcggggaga agacggcggc caagctgatc cgggagtggg gaagcctgga aaacctcctc aagaacctgg accggctgaa gcccgccatc cgggagaaga tcctggccca catggacgat 720 ctgaagctct cctgggacct ggccaaggtg cgcaccgacc tgcccctgga ggtggacttc 780 gccaaaaggc gggagcccga ccgggagagg cttagggcct ttctggagag gcttgagttt 840 ggcagcctcc tccacgagtt cggccttctg gaaagcccca aggccctgga ggaggccccc 900 tggccccgc cggaagggc cttcgtgggc ttcgtcctct cccgccccga gcccatgtgg 960 gcggagctta aagccctggc cgcctgcagg ggcggccgcg tgcaccgggc agcagacccc 1020 ttggcggggc taaaggacct caaggaggtc cggggcctcc tcgccaagga cctcgccgtc 1080 ttggcctcga gggaggggct agacctcgtg cccggggacg accccatgct cctcgcctac 1140 ctcctgggcc cctcgaacac caccccgag ggggtggcgc ggcgctacgg gggggagtgg 1200 acggaggacg ccgccaccg ggccctcctc tcggagaggc tccatcggaa cctccttaag 1260 cgcctcgagg gggaggagaa gctcctttgg ctctaccacg aggtggaaaa gcccctctcc 1320 cgggtcctgg cccatatgga ggccaccggg gtacggctgg acgtggccta ccttcaggcc 1380 ctttccctgg agcttgcgga ggagatccgc cgcctcgagg aggaggtctt ccgcttggcg 1440 ggccacccct tcaacctcaa ctcccgggac cagctggaaa gggtgctctt tgacgagctt 1500 aggetteecg cettgaagaa gacgaagaag acaggeaage geteeaceag egeegeggtg 1560 ctqqaqqccc tacqqqaqqc ccaccccatc gtgqaqaaqa tcctccagca ccgggagctc 1620 accaagetea aqaacaceta eqtqqaeeee eteceaagee tegteeaeee gaggaeggge 1680 cgcctccaca cccgcttcaa ccagacggcc acggccacgg ggaggcttag tagctccgac 1740 cccaacctgc agaacatccc cgtccgcacc cccttgggcc agaggatccg ccgggccttc 1800 gtggccgagg cgggttgggc gttggtggcc ctggactata gccagataga gctccgcgtc 1860 ctcgcccacc tctccgggga cgaaaacctg atcagggtct tccaggaggg gaaggacatc 1920 cacacccaga ccgcaagctg gatgttcggc gtccccccgg aggccgtgga ccccctgatg 1980 cqccqqqcqq ccaagacggt gaacttcggc gtcctctacg gcatgtccgc ccataggctc 2040 tcccaqqaqc ttqccatccc ctacgaggag gcggtggcct ttatagagcg ctacttccaa 2100 agettececa aggtgeggge etggatagaa aagaceetgg aggaggggag gaagegggge 2160 tacgtggaaa ccctcttcgg aagaaggcgc tacgtgcccg acctcaacgc ccgggtgaag 2220 agegtcaggg aggccgcgga gcgcatggcc ttcaacatgc ccgtccaggg caccgccgcc 2280 gacctcatga agctcgccat ggtgaagctc ttcccccgcc tccgggagat gggggcccgc 2340 atgctcctcc aggtcgccaa cgagctcctc ctggaggccc cccaagcgcg ggccgaggag 2400 gtggcggctt tggccaagga ggccatggag aaggcctatc ccctcgccgt gcccctggag 2460 gtggaggtgg ggatgggga ggactggctt tccgccaagg gtcaccacca ccaccaccac 2520 <212> Type : DNA <211> Length : 2520

SequenceName: 2820 SequenceDescription:

Custom Codon

Sequence Name : 2820

Sequence

<213> OrganismName : Artificial Sequence

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<212> Type : PRT <211> Length : 840

SequenceName : 2821
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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccc tgcccctctt tgagcccaag ggccgggtgc ttctggtgga cggccaccac 60 ctggcctacc gtaccttttt tgccctgaag ggcctcacca ccagccgcgg ggagccggtc 120 caggeggtgt aegggtttge caagageett ttgaaggege taagggaaga eggggatgtg 180 gtgatcgtgg tgtttgacgc caaggccccc tccttccgcc accagaccta cgaggcctac 240 aaggeggge gggeteecac eeeegaggae ttteeeegge agettgeeet tateaaggag 300 atggtggacc ttttgggctt tacccgcctc gaggtgccgg gctttgaagc ggatgacgtc 360 ctggctaccc tggccaagaa ggcggaaaag gagggctacg aggtccgcat cctcaccgcc 420 gacaaagacc tttaccagct cctttccgac cgcatccacg tcctccaccc cgaggggtac 480 ctcatcaccc cggcctggct ttgggaaaag tacggcctga ggcccgacca gtgggccgac 540 taccgggccc tgaccgggga cgagtccgac aaccttcccg gggtcaaggg catcggggag aagacggcga ggaagcttct ggaggagtgg gggagcctgg aagccctcct caagaacctg gaccggctga agcccgccat ccgggagaag atcctggccc acatggacga tctgaagctc 720 tcctgggacc tggccaaggt gcgcaccgac ctgcccctgg aggtggactt cgccaaaagg 780 cgqqaqcccq accgggaggg ggagaagccc cgggaggagg ccccctggcc cccgcccgaa 840 ggggccttcg tgggcttcct cctttcccgc cccgagccca tgtgggcgga gcttaaagcc 900 ctggccgcct gcaggggcgg ccgcgtgcac cgggcagcag accccttggc ggggctaaag 960 gacctcaagg aggtccgggg cctcctcgcc aaggacctcg ccgtcttggc ctcgagggag 1020 gggctagacc tcgtgcccgg ggacgacccc atgctcctcg cctacctcct gggcccctcg 1080 aacaccaccc ccgaggggt ggcgcggcgc tacggggggg agtggacgga ggacgccgcc cacegggece teetetegga gaggeteeat eggaacetee ttaagegeet egaggggag gagaagetee tttggeteta ceaegaggtg gaaaageeee teteeegggt eetggeeeat atggaggcca ccggggtacg gctggacgtg gcctaccttc aggccctttc cctggagctt 1320 geggaggaga teegeegeet egaggaggag gtetteeget tggegggeea eeeetteaac ctcaactccc gggaccagct ggaaagggtg ctctttgacg agcttaggct tcccgccttg aagaagacga agaagacagg caagcgctcc accagcgccg cggtgctgga ggccctacgg gaggcccacc ccatcgtgga gaagatcctc cagcaccggg agctcaccaa gctcaagaac acctacgtgg accccctccc aagcctcgtc cacccgagga cgggccgcct ccacacccgc 1620 ttcaaccaga cggccacggc cacggggagg cttagtagct ccgaccccaa cctgcagaac atccccqtcc gcaccccctt gggccagagg atccgccggg ccttcgtggc cgaggcgggt tqqqcqttqq tggccctgga ctatagccag atagagctcc gcgtcctcgc ccacctctcc ggggacgaaa acctgatcag ggtcttccag gaggggaagg acatccacac ccagaccgca agetggatgt teggegteec eeeggaggee gtggaceece tgatgegeeg ggeggeeaag acggtgaact tcggcgtcct ctacggcatg tccgcccata ggctctccca ggagcttgcc atcccctacg aggaggcggt ggcctttata gagcgctact tccaaagctt ccccaaggtg cgggcctgga tagaaaagac cctggaggag gggaggaagc ggggctacgt ggaaaccctc ttcggaagaa ggcgctacgt gcccgacctc aacgcccggg tgaagagcgt cagggaggcc geggagegea tggeetteaa catgeeegte cagggeaceg cegeegaeet catgaagete gccatggtga agctcttccc ccgcctccgg gagatggggg cccgcatgct cctccaggtc gccaacgagc tcctcctgga ggccccccaa gcgcgggccg aggaggtggc ggctttggcc aaggaggcca tggagaaggc ctatcccctc gccgtgcccc tggaggtgga ggtggggatg 2400 ggggaggact ggctttccgc caagggtcac caccaccacc accac 2445 <212> Type : DNA <211> Length : 2445 SequenceName : 2822 SequenceDescription :

Custom Codon

Sequence Name : 2822

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSLPLFEPK GRVLLVDGHH LAYRTFFALK GLTTSRGEPV QAVYGFAKSL LKALREDGDV VIVVFDAKAP SFRHQTYEAY KAGRAPTPED FPRQLALIKE MVDLLGFTRL EVPGFEADDV 120 LATLAKKAEK EGYEVRILTA DKDLYQLLSD RIHVLHPEGY LITPAWLWEK YGLRPDQWAD 180 YRALTGDESD NLPGVKGIGE KTARKLLEEW GSLEALLKNL DRLKPAIREK ILAHMDDLKL 240 SWDLAKVRTD LPLEVDFAKR REPDREGEKP REEAPWPPPE GAFVGFLLSR PEPMWAELKA 300 LAACRGGRVH RAADPLAGLK DLKEVRGLLA KDLAVLASRE GLDLVPGDDP MLLAYLLGPS 360 NTTPEGVARR YGGEWTEDAA HRALLSERLH RNLLKRLEGE EKLLWLYHEV EKPLSRVLAH 420 MEATGVRLDV AYLQALSLEL AEEIRRLEEE VFRLAGHPFN LNSRDQLERV LFDELRLPAL KKTKKTGKRS TSAAVLEALR EAHPIVEKIL QHRELTKLKN TYVDPLPSLV HPRTGRLHTR 540 FNOTATATGR LSSSDPNLQN IPVRTPLGQR IRRAFVAEAG WALVALDYSQ IELRVLAHLS GDENLIRVFQ EGKDIHTQTA SWMFGVPPEA VDPLMRRAAK TVNFGVLYGM SAHRLSQELA 660 IPYEEAVAFI ERYFQSFPKV RAWIEKTLEE GRKRGYVETL FGRRRYVPDL NARVKSVREA 720 AERMAFNMPV QGTAADLMKL AMVKLFPRLR EMGARMLLQV ANELLLEAPQ ARAEEVAALA 780

KEAMEKAYPL AVPLEVEVGM GEDWLSAKGH HHHHH

815

<212> Type : PRT <211> Length: 815

> SequenceName: 2823 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac 60 ggccaccacc tggcctaccg cacettette gccctgaagg gcctcaccac gagccggggc 120 gaaccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct caaggaggac 180 ggggacgcgg tgatcgtggt ctttgacgcc aaggccccct ccttccgcca cgaggcctac 240 ggggggtaca aggcgggccg ggccccacc ccggaggact tcccccgcca gctcgccttg 300 gtcaagcggc tggtggacct tctgggcttt acccgcctcg aggccccggg gtacgaggcg gacgacgtcc tgggcaccct ggccaagaag gccgaaaagg aggggtacga ggtgcgcatc 420 cteacegeeg accegegacet etaceaacte gteteegace geatecaegt cetecaecee

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<400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED 60 GDAVIVVFDA KAPSFRHEAY GGYKAGRAPT PEDFPROLAL VKRLVDLLGF TRLEAPGYEA 120 DDVLGTLAKK AEKEGYEVRI LTADRDLYOL VSDRIHVLHP EGYLITPEWL WEKYGLKPSO 180 WVDYRALAGD PSDNIPGVKG IGEKTAAKLI REWGSLENLL KNLDRLKPAI REKILAHMDD 240 LKLSWDLAKV RTDLPLEVDF AKRREPDRER LRAFLERLEF GSLLHEFGLL ESPKALEEAP 300 WPPPEGAFVG FVLSRPEPMW AELKALAACR GGRVHRAADP LAGLKDLKEV RGLLAKDLAV 360 LASREGLDLV PGDDPMLLAY LLGPSNTTPE GVARRYGGEW TEDAAHRALL SERLHRNLLK 420 RLEGEEKLLW LYHEVEKPLS RVLAHMEATG VRLDVAYLOA LSLELAEEIR RLEEEVFRLA 480 GHPFNLNSRD QLERVLFDEL RLPALKKTKK TGKRSTSAAV LEALREAHPI VEKILQHREL 540 TKLKNTYVDP LPSLVHPRTG RLHTRFNOTA TATGRLSSSD PNLONIPVRT PLGORIRRAF 600 VAEAGWALVA LDYSQIELRV LAHLSGDENL IRVFQEGKDI HTQTASWMFG VPPEAVDPLM 660 RRAAKTVNFG VLYGMSAHRL SOELAIPYEE AVAFIERYFO SFPKVRAWIE KTLEEGRKRG 720 YVETLFGRRR YVPDLNARVK SVREAAERMA FNMPVQGTAA DLMKLAMVKL FPRLREMGAR 780 MLLQVANELL LEAPQARAEE VAALAKEAME KAYPLAVPLE VEVGMGEDWL SAKGHHHHHH 840

<212> Type : PRT <211> Length: 840 SequenceName : 2825 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaatteee tgeeeetett tgageeeaag ggeegggtge ttetggtgga eggeeaeeae 60 etggeetace gtacettttt tgeeetgaag ggeeteacea ceageegegg ggageeggte caggcggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg 180 gtgatcgtgg tetttgacge egaggeeece teetteegee accagaceta egaggeetae 240 aaggegggge gggeteecae eeeegaggae ttteeeegge agettgeeet tateaaggag 300 atggtggacc ttttgggcct ggagcgcctc gaggtgccgg gctttgaagc ggatgacgtc 360 ctggctaccc tggccaagaa ggcggaaaag gagggctacg aggtccgcat cctcaccgcc 420 gacaaagacc tttaccagct cettteegac egeateeaeg teeteeaecc egaggggtac 480 ctcatcaccc cggcctggct ttgggaaaag tacggcctga ggcccgacca gtgggccgac 540 taccgggccc tgaccgggga cgagtccgac aaccttcccg gggtcaaggg catcggggag 600 aagacggcga ggaagcttct ggaggagtgg gggagcctgg aagccctcct caagaacctg 660 gaccggctga agcccgccat ccgggagaag atcctggccc acatggacga tctgaagctc 720 teetgggace tggccaaggt gegeacegae etgeceetgg aggtggaett egecaaaagg 780 cgggagcccg accgggaggg ggagaagccc cgggaggagg ccccctggcc cccgccgaa 840 ggggccttcg tgggcttcct cctttcccgc cccgagccca tgtgggcgga gcttaaagcc 900 ctggccgcct gcaggggcgg ccgcgtgcac cgggcagcag accccttggc ggggctaaag 960 gacctcaagg aggtccgggg cctcctcgcc aaggacctcg ccgtcttggc ctcgagggag 1020 gggctagacc tcgtgcccgg ggacgacccc atgctcctcg cctacctcct gggcccctcg 1080 aacaccaccc ccgaggggt ggcgcggcgc tacggggggg agtggacgga ggacgccgcc 1140 caccgggccc tcctctcgga gaggctccat cggaacctcc ttaagcgcct cgaggggag 1200 gagaagetee tttggeteta ceaegaggtg gaaaageeee teteeegggt cetggeeeat 1260 atggaggcca ccggggtacg gctggacgtg gcctaccttc aggccctttc cctggagctt 1320 geggaggaga teegeegeet egaggaggag gtetteeget tggegggeea eecetteaae 1380 ctcaactccc gggaccagct ggaaagggtg ctctttgacg agcttaggct tcccgccttg aagaagacga agaagacagg caagcgctcc accagcgccg cggtgctgga ggccctacgg 1500 gaggeeeace eeategtgga gaagateete cageaceggg ageteaceaa geteaagaac 1560 acctacgtgg acccectece aagcetegte caccegagga egggeegeet ceacaceege 1620 ttcaaccaga cggccacggc cacggggagg cttagtagct ccgaccccaa cctgcagaac 1680 ateceegtee geaceeeett gggeeagagg atecgeeggg cettegtgge egaggegggt 1740 tgggcgttgg tggccctgga ctatagccag atagagctcc gcgtcctcgc ccacctctcc 1800 ggggacgaaa acctgatcag ggtcttccag gaggggaagg acatccacac ccagaccgca 1860

815

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<212> Type : PRT <211> Length : 815

SequenceName : 2827
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccc tgcccctctt tgagcccaag ggccgggtgc ttctggtgga cggccaccac ctggcctacc gtaccttttt tgccctgaag ggcctcacca ccagccgcgg ggagccggtc 120 caggcggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg 180 gtgatcgtgg tctttgacgc cgaggccccc tccttccgcc accagaccta cgaggcctac 240 aaggegggge gggeteeeae eeeegaggae ttteeeegge agettgeeet tateaaggag 300 atggtggacc ttttgggctt tacccgcctc gaggtgccgg gctttgaagc ggatgacgtc 360 ctggctaccc tggccaagaa ggcggaaaag gagggctacg aggtccgcat cctcaccgcc gacaaagacc tttaccagct cctttccgac cgcatccacg tcctccaccc cgaggggtac ctcatcaccc cggcctggct ttgggaaaag tacggcctga ggcccgacca gtgggccgac taccgggccc tgaccgggga cgagtccgac aaccttcccg gggtcaaggg catcggggag aagacggcga ggaagcttct ggaggagtgg gggagcctgg aagccctcct caagaacctg gaccggctga agcccgccat ccgggagaag atcctggccc acatggacga tctgaagctc 720 tectgggace tggccaaggt gegcacegae etgcceetgg aggtggactt egccaaaagg cgggagcccg accgggaggg ggagaagccc cgggaggagg ccccctggcc cccgcccgaa 840 ggggccttcg tgggcttcct cctttcccgc cccgagccca tgtgggcgga gcttaaagcc 900 etggeegeet geaggggegg eegegtgeae egggeageag acceettgge ggggetaaag 960 gacctcaagg aggtccgggg cetectcgcc aaggaceteg eegtettgge etegagggag 1020 qqqctaqacc tcqtqcccqq ggacqacccc atgctcctcg cctacctcct gggcccctcg 1080 aacaccaccc ccgaggggt ggcgcggcgc tacggggggg agtggacgga ggacgccgcc 1140 caccgggccc tcctctcgga gaggctccat cggaacctcc ttaagcgcct cgagggggag 1200 gagaagetee tttggeteta ceaegaggtg gaaaageeee teteeegggt eetggeeeat 1260 atggaggcca ccggggtacg gctggacgtg gcctaccttc aggccctttc cctggagctt 1320 gcggaggaga tccgccgcct cgaggaggag gtcttccgct tggcgggcca ccccttcaac 1380 ctcaactccc gggaccagct ggaaagggtg ctctttgacg agcttaggct tcccgccttg 1440 aagaagacga agaagacagg caagcgctcc accagcgccg cggtgctgga ggccctacgg 1500 gaggeceace ecategtgga gaagateete eageaceggg ageteaceaa geteaagaac 1560

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Custom Codon

Sequence Name: 2828

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString :

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360 NTTPEGVARR YGGEWTEDAA HRALLSERLH RNLLKRLEGE EKLLWLYHEV EKPLSRVLAH

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815

<212> Type : PRT <211> Length : 815

SequenceName : 2829
SequenceDescription :

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac 60 ggccaccacc tggcctaccg tacctttttt gccctgaagg gcctcaccac cagccggggg 120 gagccggtcc aggcggtgta cgggtttgcc aagagccttt tgaaggcgct aagagaagac 180 ggggacgcgg tgatcgtggt ctttgacgcc gaggccccct ccttccgcca cgaggcctac 240 ggggggtaca aggcggggcg ggctcccacc cccgaggact ttccccggca gcttgccctt 300 atcaaggagc tggtggacct cctggggttt accegcctcg aggtccccgg ctacgaggcg 360 gacgacgttc tcgccaccct ggccaagaag gcggaaaagg aggggtacga ggtgcgcatc 420 ctcaccgccg acaaagacct ttaccagctc ctttccgacc gcatccacgt cctccacccc 480 gaggggtacc tcatcacccc ggcctggctt tgggaaaagt acggcctgag gcccgaccag 540 tgggccgact accggggcct gaccggggac gagtccgaca accttcccgg ggtcaagggc 600 ateggggaga agacegeett caageteete aaggagtggg ggageetgga ageeeteete 660 aagaacctgg accggctgaa gcccgccatc cgggagaaga tcctggccca catggacgat 720 ctgaagetet cetgggacet ggccaaggtg cgcacegace tgcccetgga ggtggactte 780 gccaaaaggc gggagcccga ccgggagggg cttaaggcct ttttggagag gctggagttc 840 ggcagcetce tecacgagtt eggceteetg ggaggggaga ageceeggga ggaggeeece 900 tggccccgc cggaagggc cttcgtgggc tttgtgcttt cccgcaagga gcccatgtgg 960 qccqatcttc tggccctqqc cgcctgcagg ggcggccgcg tgcaccgggc agcagacccc 1020 ttggcggggc taaaggacct caaggaggtc cggggcctcc tcgccaagga cctcgccgtc 1080 ttggcctcga gggagggct agacctcgtg cccggggacg accccatgct cctcgcctac 1140 ctcctgggcc cctcgaacac caccccgag ggggtggcgc ggcgctacgg gggggagtgg acggaggacg ccgcccaccg ggccctcctc tcggagaggc tccatcggaa cctccttaag 1260

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<212> Type : DNA
<211> Length : 2520
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SequenceNam

SequenceName : 2830 SequenceDescription :

Custom Codon

Sequence Name : 2830

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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180 WADYRALTGD ESDNLPGVKG IGEKTALKLL KEWGSLEALL KNLDRLKPAI REKILAHMDD LKLSWDLAKV RTDLPLEVDF AKRREPDREG LKAFLERLEF GSLLHEFGLL GGEKPREEAP 300 WPPPEGAFVG FVLSRKEPMW ADLLALAACR GGRVHRAADP LAGLKDLKEV RGLLAKDLAV LASREGLDLV PGDDPMLLAY LLGPSNTTPE GVARRYGGEW TEDAAHRALL SERLHRNLLK 420 RLEGEEKLLW LYHEVEKPLS RVLAHMEATG VRLDVAYLQA LSLELAEEIR RLEEEVFRLA GHPFNLNSRD OLERVLFDEL RLPALKKTKK TGKRSTSAAV LEALREAHPI VEKILQHREL TKLKNTYVDP LPSLVHPRTG RLHTRFNOTA TATGRLSSSD PNLONIPVRT PLGORIRRAF 600 VAEAGWALVA LDYSOIELRV LAHLSGDENL IRVFOEGKDI HTQTASWMFG VPPEAVDPLM 660 RRAAKTVNFG VLYGMSAHRL SOELAIPYEE AVAFIERYFO SFPKVRAWIE KTLEEGRKRG 720 YVETLFGRRR YVPDLNARVK SVREAAERMA FNMPVOGTAA DLMKLAMVKL FPRLREMGAR 780 MLLOVANELL LEAPOARAEE VAALAKEAME KAYPLAVPLE VEVGMGEDWL SAKGHHHHHH 840

<212> Type : PRT <211> Length : 840

SequenceName : 2831 SequenceDescription :

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SequenceDescription :

Custom Codon

Sequence Name : 2832

Sequence

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AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420

LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR

LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR 540

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AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP 660

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842

<212> Type : PRT <211> Length : 842

SequenceName: 2833 SequenceDescription:

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Sequence Name: 2834
Sequence
<213> OrganismName : Artificial Sequence
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LATLAKKAEK EGYEVRILTG DRDLYQLVSD RVAVLHPEGH LITPEWLWEK YGLRPEQWVD
180
YRALAGDPSD NIPGVKGIGE KTARKLLEEW GSVEALLKNL DRLKPAIREK ILAHMEDLKL
240
SLELSRVRTD LPLEVDLAQG REPDREGLKA FLERLEFGSL LHEFGLLESP VAAEEAPWPP
300
PEGAFVGYVL SRPEPMWAEL NALAAAWGGR VHRAADPLAG LKDLKEVRGL LAKDLAVLAS
360
REGLDLVPGD DPMLLAYLLG PSNTTPEGVA RRYGGEWTED AAHRALLSER LHRNLLKRLE
420
GEEKLLWLYH EVEKPLSRVL AHMEATGVRL DVAYLQALSL ELAEEIRRLE EEVFRLAGHP
480
FNLNSRDQLE RVLFDELRLP ALKKTKKTGK RSTSAAVLEA LREAHPIVEK ILOHRELTKL
540
KNTYVDPLPS LVHPRTGRLH TRFNQTATAT GRLSSSDPNL QNIPVRTPLG QRIRRAFVAE
600
AGWALVALDY SQIELRVLAH LSGDENLIRV FQEGKDIHTQ TASWMFGVPP EAVDPLMRRA
AKTVNFGVLY GMSAHRLSQE LAIPYEEAVA FIERYFQSFP KVRAWIEKTL EEGRKRGYVE
TLFGRRRYVP DLNARVKSVR EAAERMAFNM PVQGTAADLM KLAMVKLFPR LREMGARMLL
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<211> Length: 837
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Sequence

SequenceDescription:

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AKTVNFGVLY GMSAHRLSQE LAIPYEEAVA FIERYFQSFP KVRAWIEKTL EEGRKRGYVE

720 TLFGRRRYVP DLNARVKSVR EAAERMAFNM PVQGTAADLM KLAMVKLFPR LREMGARMLL 780 QVANELLLEA PQARAEEVAA LAKEAMEKAY PLAVPLEVEV GMGEDWLSAK G 831

<212> Type : PRT <211> Length : 831

SequenceName : 2837
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Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac 60 ggccaccacc tggcctaccg caccttcttc gccctgaagg gcctcaccac gagccggggc 120 gaaccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct gaaggaggac 180 gggtacaagg ccgtcttcgt ggtctttgac gccaaggccc cctccttccg ccacgaggcc 240 tacgaggcct acaaggcggg gagggccccg acccccgagg acttcccccg gcagctcgcc 300 ctcatcaagg agctggtgga cctcctgggg tttacccgcc tcgaggtccc cggctacgag 360 gcggacgacg ttctcgccac cctggccaag aaggcggaaa aggagggta cgaggtgcgc 420 atcotcaccg cogacogoga cototaccaa otogtotoog acogogtogo ogtootocac ecegagggee aceteateae eeeggagtgg etttgggaga agtaeggeet eaggeeggag cagtgggtgg actteegege cetegtgggg gaceceteeg acaaceteee eggggteaag 600 ggcatcgggg agaagaccgc cctcaagctc ctcaaggagt ggggaagcct ggaaaacctc 660 ctcaagaacc tggaccgggt aaagccagaa aacgtccggg agaagatcaa ggcccacctg 720 gaagacetca ggeteteett ggagetetee egggtgegea eegaceteee eetggaggtg 780 gacctegece aggggeggga gecegacegg gaggggetta gggeetteet ggagaggetg 840 gagtteggea geeteeteea egagttegge eteetggagg eeceegeece eetggaggag 900 gcccctggc cccgccgga aggggccttc gtgggcttcg tcctctcccg ccccgagccc 960 atgtgggegg agettaaage cetggeegee tgeaggggeg geegegtgea eegggeagea 1020 gaccccttgg cggggctaaa ggacctcaag gaggtccggg gcctcctcgc caaggacctc 1080 gccgtcttgg cctcgaggga ggggctagac ctcgtgcccg gggacgaccc catgctcctc 1140 gcctacctcc tggacccttc gaacaccacc cccgaggggg tggcgcggcg ctacggggg 1200 gagtggacgg aggacgccgc ccaccgggcc ctcctctcgg agaggctcca tcggaacctc 1260 cttaagcgcc tcgaggggga ggagaagctc ctttggctct accacgaggt ggaaaagccc 1320 ctctcccggg tcctggccca catggaggcc accggggtac ggctggacgt ggcctacctt 1380

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Custom Codon

Sequence Name : 2838

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<213> OrganismName : Artificial Sequence

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Custom Codon
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Sequence Name: 2840

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ARMLLQVANE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840

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<212> Type : PRT <211> Length : 842

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Sequence Name : 2842
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Sequence

SequenceDescription :

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120

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SequenceName : 2848 SequenceDescription :

Custom Codon

Sequence Name: 2848

Sequence

<213> OrganismName : Artificial Sequence

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<211> Length : 2514
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Custom Codon

Sequence Name: 2850

Sequence

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<212> Type : PRT <211> Length : 838

SequenceName : 2851 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccc tgcccctctt tgagcccaag ggccgggtgc ttctggtgga cggccaccac 60 ctggcctacc gcacccgcca cgccctgaag ggcctcacca ccagccgcgg ggagccggtc 120 caggoggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg 180 gtgatcgtgg tgtttgacgc caaggccccc tccttccgcc accagaccta cgaggcctac 240 aaggegggge gggeteecac eeeegaggae ttteeeegge agettgeeet tateaaggag 300 atggtggacc ttttgggcct ggagcgcctc gaggtgccgg gctttgaagc ggatgacgtc 360 ctggctaccc tggccaagaa ggcggaaaag gaaggctacg aagtgcgcat cctcaccgcg 420 gaccgggacc tttaccagct tctttcggag cgaatctcca tccttcaccc ggagggttac 480 ctgatcaccc cggagtggct ttgggagaag tatgggctta agccttccca gtgggtggac 540 taccgggcct tggccgggga cccttccgac aacatccccg gcgtgaaggg catcggggag 600 aagacggcgg ccaagctgat ccgggagtgg ggaagcctgg aaaaccttct taagcacctg 660 gaacaggtga aacctgcctc cgtgcgggag aagatcctta gccacatgga ggacctcaag 720 ctatccctgg agctatcccg ggtgcacacg gacttgctcc ttcaggtgga cttcgcccgg 780 cgccgggagc cggaccggga ggggcttaag gcctttttgg agaggctgga gttcggaagc 840 ctcctccacg agttcggcct gttggaaagc ccggtggcgg cggaggaagc tccctggccg 900 ccccccgagg gagccttcgt ggggtacgtt ctttcccgcc ccgagcccat gtgggcggag cttaacgcct tggccgccgc ctggggcggc cgcgtgcacc gggcagcaga ccccttggcg gggctaaagg acctcaagga ggtccggggc ctcctcgcca aggacctcgc cgtcttggcc 1080 tegagggagg ggetagacet egtgeeeggg gaegaceeea tgeteetege etaceteetg ggcccctcca acaccaccc cgagggggtg gcgcggcgct acggggggga gtggacggag 1200 gacgccgccc accgggccct cetctcggag aggctccatc ggaacctcct taagcgcctc 1260 gagggggagg agaagctcct ttggctctac cacgaggtgg aaaagcccct ctcccgggtc 1320 ctggcccaca tggaggccac cggggtacgg ctggacgtgg cctaccttca ggccctttcc 1380 ctggagcttg cggaggagat ccgccgcctc gaggaggagg tcttccgctt ggcgggccac cccttcaacc tcaactcccg ggaccagctg gaaagggtgc tctttgacga gcttaggctt 1500 cccgccttga agaagacgaa gaagacaggc aagcgctcca ccagcgccgc ggtgctggag 1560 gccctacggg aggcccaccc catcgtggag aagatcctcc agcaccggga gctcaccaag 1620 ctcaagaaca cctacgtgga ccccctccca agcctcgtcc acccgaggac gggccgcctc cacacceget teaaccagae ggecaeggee acggggagge ttagtagete egaeeccaae 1740

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<212> Type : DNA <211> Length : 2514

SequenceName: 2852 SequenceDescription:

Custom Codon

Sequence Name: 2852

Sequence

<213> OrganismName : Artificial Sequence

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PPEGAFVGYV LSRPEPMWAE LNALAAAWGG RVHRAADPLA GLKDLKEVRG LLAKDLAVLA

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PFNLNSRDQL ERVLFDELRL PALKKTKKTG KRSTSAAVLE ALREAHPIVE KILQHRELTK

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660
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<212> Type : PRT <211> Length : 838

SequenceName : 2853 SequenceDescription :

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccc tgcccctctt tgagcccaag ggccgggtgc ttctggtgga cggccaccac 60 ctggcctacc gcacccgccg cgccctgaag ggcctcacca ccagccgcgg ggagccggtc 120 caggoggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg gtgatcgtgg tgtttgacgc caaggccccc tccttccgcc accagaccta cgaggcctac aaggegggge gggeteecae eeeegaggae ttteeeegge agettgeeet tateaaggag atggtggacc ttttgggcct ggagcgcctc gaggtgccgg gctttgaagc ggatgacgtc 360 ctggctaccc tggccaagaa ggcggaaaag gaaggctacg aagtgcgcat cctcaccgcg gaccgggacc tttaccagct tctttcggag cgaatctcca tccttcaccc ggagggttac ctgatcaccc cggagtggct ttgggagaag tatgggctta agccttccca gtgggtggac taccgggcct tggccgggga cccttccgac aacatccccg gcgtgaaggg catcggggag aagacggcgg ccaagctgat ccgggagtgg ggaagcctgg aaaaccttct taagcacctg gaacaggtga aacctgcctc cgtgcgggag aagatcctta gccacatgga ggacctcaag ctatccctgg agctatcccg ggtgcacacg gacttgctcc ttcaggtgga cttcgcccgg cgccgggagc cggaccggga ggggcttaag gcctttttgg agaggctgga gttcggaagc ctcctccacg agttcggcct gttggaaagc ccggtggcgg cggaggaagc tccctggccg cccccgagg gagccttcgt ggggtacgtt ctttcccgcc ccgagcccat gtgggcggag cttaacgcct tggccgccgc ctggggcggc cgcgtgcacc gggcagcaga ccccttggcg gggctaaagg acctcaagga ggtccggggc ctcctcgcca aggacctcgc cgtcttggcc tegagggagg ggetagaeet egtgeeeggg gaegaeeeea tgeteetege etaceteetg ggcccctcca acaccaccc cgagggggtg gcgcggcgct acggggggga gtggacggag 1200 gacgccgccc accgggccct cctctcggag aggctccatc ggaacctcct taagcgcctc gagggggagg agaageteet ttggetetae caegaggtgg aaaageeeet eteeegggte 1320

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<212> Type : DNA <211> Length : 2514

SequenceName : 2854 SequenceDescription :

Custom Codon

Sequence Name : 2854

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString :

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VIVVFDAKAP SFRHQTYEAY KAGRAPTPED FPRQLALIKE MVDLLGLERL EVPGFEADDV 120

LATLAKKAEK EGYEVRILTA DRDLYQLLSE RISILHPEGY LITPEWLWEK YGLKPSQWVD 180

YRALAGDPSD NIPGVKGIGE KTAAKLIREW GSLENLLKHL EOVKPASVRE KILSHMEDLK

240 LSLELSRVHT DLLLQVDFAR RREPDREGLK AFLERLEFGS LLHEFGLLES PVAAEEAPWP 300 PPEGAFVGYV LSRPEPMWAE LNALAAAWGG RVHRAADPLA GLKDLKEVRG LLAKDLAVLA 360 SREGLDLVPG DDPMLLAYLL GPSNTTPEGV ARRYGGEWTE DAAHRALLSE RLHRNLLKRL 420 EGEEKLLWLY HEVEKPLSRV LAHMEATGVR LDVAYLQALS LELAEEIRRL EEEVFRLAGH 480 PFNLNSRDQL ERVLFDELRL PALKKTKKTG KRSTSAAVLE ALREAHPIVE KILQHRELTK 540 LKNTYVDPLP SLVHPRTGRL HTRFNQTATA TGRLSSSDPN LQNIPVRTPL GQRIRRAFVA 600 EAGWALVALD YSQIELRVLA HLSGDENLIR VFQEGKDIHT QTASWMFGVP PEAVDPLMRR 660 AAKTVNFGVL YGMSAHRLSO ELAIPYEEAV AFIERYFQSF PKVRAWIEKT LEEGRKRGYV 720 ETLFGRRRYV PDLNARVKSV REAAERMAFN MPVQGTAADL MKLAMVKLFP RLREMGARML 780 LQVANELLLE APQARAEEVA ALAKEAMEKA YPLAVPLEVE VGMGEDWLSA KGHHHHHH 838

<212> Type : PRT <211> Length : 838

SequenceName : 2855 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg ggatgctgcc cctctttgag cccaagggcc gggtcctcct ggtggacggc caccacctgg cctaccgcac ccgccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgcggtga tcgtggtctt tgacgccaag gcccctcct tccgccacga ggcctacggg gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggetggeg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag 480 gggtacetea teacecegge etggetttgg gaaaagtaeg geetgaggee egaceagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg 720 aageteteet gggaeetgge caaggtgege accgaeetge eeetggaggt ggaettegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agceteetee aegagttegg cettetggaa ageeceaagg ceetggagga ggeeceetgg 900

ccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc 960 gatettetgg ecetggeege egeeagggge ggeegegtge acegggeage agacecettg 1020 geggggetaa aggaceteaa ggaggteegg ggeeteeteg ceaaggacet egeegtettg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc 1140 etgggeeeet eeaacaceae eeegagggg gtggegegge getaeggggg ggagtggaeg 1200 gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cetttggete taccacgagg tggaaaagce cetetecegg 1320 gtcctggccc acatggaggc caccggggta cggctggacg tggcctacct tcaggccctt 1380 tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc 1440 caccccttca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg 1500 cttcccgcct tgaagaagac gaagaagaca ggcaagcgct ccaccagcgc cgcggtgctg gaggeeetae gggaggeeca ecceategtg gagaagatee tecageaceg ggageteace 1620 aageteaaga acacetaegt ggaceceete ecaageeteg tecaecegag gaegggeege 1680 ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc 1740 aacctgcaga acatccccgt ccgcaccccc ttgggccaga ggatccgccg ggccttcgtg 1800 gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acceagaceg caagetggat gtteggegte eeeeeggagg eegtggaeee eetgatgege 1980 cgggcggcca agacggtgaa cttcggcgtc ctctacggca tgtccgccca taggctctcc 2040 caggagettg ceateceeta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac gtggaaaccc tcttcggaag aaggcgctac gtgcccgacc tcaacgcccg ggtgaagagc 2220 gtcagggagg ccgcggagcg catggccttc aacatgcccg tccagggcac cgccgccgac 2280 ctcatgaagc tcgccatggt gaagctcttc ccccgcctcc gggagatggg ggcccgcatg 2340 ctectecagg tegecaacga getectectg gaggeceee aagegeggge egaggaggtg 2400 geggetttgg ccaaggagge catggagaag gectateece tegeegtgee eetggaggtg 2460 gaggtgggga tgggggagga ctggctttcc gccaagggtc accaccacca ccaccac 2517

<212> Type : DNA <211> Length : 2517 SequenceName : 2856 SequenceDescription :

Custom Codon

V 19

Sequence Name: 2856 Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTRHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60 DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300 PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420 LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839 <212> Type : PRT <211> Length: 839 SequenceName: 2857 SequenceDescription : Sequence _ _ _ _ _ _ _ <213> OrganismName : Artificial Sequence <400> PreSequenceString : cgcctacctc ctggaccctt cgaacaccac c 31 <212> Type : DNA <211> Length : 31 SequenceName: 2858 SequenceDescription : Custom Codon _____ Sequence Name: 2858 Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : ggtggtgttc gaagggtcca ggaggtaggc g

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31
<212> Type : DNA
<211> Length : 31
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Custom Codon
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Sequence Name: 2859
Sequence
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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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28
<212> Type : DNA
<211> Length : 28
      SequenceName: 2860
      SequenceDescription :
Custom Codon
Sequence Name: 2860
Sequence
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
ctgaaggtag gccacgtccc gccgtacc
<212> Type : DNA
<211> Length: 28
      SequenceName: 2861
      SequenceDescription :
Custom Codon
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Sequence Name : 2861
Sequence
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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
cacctggcct accgcacccg cttcgccctg aagggcctc
<212> Type : DNA
<211> Length : 39
      SequenceName: 2862
      SequenceDescription :
Custom Codon
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Sequence Name : 2862
Sequence
 <213> OrganismName : Artificial Sequence
 <400> PreSequenceString :
 gaggcccttc agggcgaagc gggtgcggta ggccaggtg
 39
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<212> Type : DNA
<211> Length: 39
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      SequenceDescription :
Custom Codon
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Sequence Name: 2863
Sequence
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
cacctggcct accgcaccg ccacgccctg aagggcctca cc
<212> Type : DNA
<211> Length : 42
      SequenceName: 2864
      SequenceDescription :
Custom Codon
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Sequence Name : 2864
Sequence
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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
ggtgaggccc ttcagggcgt ggcgggtgcg gtaggccagg tg
42
<212> Type : DNA
<211> Length: 42
      SequenceName : 2865
      SequenceDescription :
Custom Codon
Sequence Name: 2865
Sequence
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
cacctggcct accgcacccg ccgcgccctg aagggcctca cc
42
<212> Type : DNA
<211> Length : 42
      SequenceName : 2866
      SequenceDescription :
Custom Codon
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Sequence Name: 2866
Sequence
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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
ggtgaggccc ttcagggcgc ggcgggtgcg gtaggccagg tg
42
<212> Type : DNA
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<211> Length : 42
 SequenceName : 2867
 SequenceDescription :

Custom Codon ------

Sequence Name : 2867

- <110> OrganizationName : Third Wave Technologies, Inc.
- <120> Title : RNA Detection Assays
- <130> AppFileReference : FORS-06666

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

120

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG

HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV

AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR

RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY

VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM

LLQVHNELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH

839

<212> Type : PRT

<211> Length : 839

SequenceName: 2641 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

120

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ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVOGTAAD LMKLAMVKLF PRLEEMGARM LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839 <212> Type : PRT <211> Length: 839 SequenceName: 2642 SequenceDescription: Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI AEEGWLLVAL DYSOIELRVL AHLSGDENLI RVFOEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839 <212> Type : PRT <211> Length: 839 SequenceName: 2643 SequenceDescription:

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60 DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKOLYOLL SDRIHVLHPE GYLITPAWLW EKYGLRPDOW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EEAGERAALS ERLFANLWGR LEGEERLLWL YREVERPLSA VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILOHRELT 540 KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2644 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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60
DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD
120
DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW
180
ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL
240
KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW
300
PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL
360
ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR
420
LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG
480
HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT
540
KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSDP NLQNIPVRTP LGQRIRRAFI
600
AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR
660

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720
VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780
LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH

<212> Type : PRT <211> Length : 839

SequenceName : 2645 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EEAGERAALS ERLFANLWGR

LEGEERLLWL YREVERPLSA VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG

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KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2646 SequenceDescription :

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<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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GYKAVFVVFD AKAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE 120

ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE

QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL

240 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL 360 AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR 480 LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFIAEEGWLL VALDYSQIEL RVLAHLSGDE NLIRVFQEGR DIHTETASWM FGVPREAVDP LMRRAAKTIN FGVLYGMSAH RLSQELAIPY EEAQAFIERY FQSFPKVRAW IEKTLEEGRR RGYVETLFGR RRYVPDLEAR VKSVREAAER MAFNMPVOGT AADLMKLAMV KLFPRLEEMG ARMLLOVHNE LVLEAPKERA EAVARLAKEV MEGVYPLAVP LEVEVGIGED WLSAKEHHHH 840 HH 842 <212> Type : PRT <211> Length: 842 SequenceName: 2647 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVOAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVHDELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKG 833

<212> Type : PRT <211> Length : 833

SequenceName : 2648
SequenceDescription :

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<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG

HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI 600

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR 660

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHDELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKE 833

<212> Type : PRT <211> Length : 833

SequenceName : 2649 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL

ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EEAGHRAALS ERLFANLWGR 420

LEGEERLLWL YREVERPLSA VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG 480 HPFNLNSRDO LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLONIPVRTP LGORIRRAFI AEEGWLLVAL DYSOIELRVL AHLSGDENLI RVFOEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLOVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH

<212> Type : PRT <211> Length: 839

SequenceName: 2650 SequenceDescription:

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL

ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EEAGERAALS ERLHRNLWGR 420

LEGEERLLWL YREVERPLSA VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG

HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

RAAKTINFGV LYGMSAHRLS OELAIPYEEA OAFIERYFOS FPKVRAWIEK TLEEGRRRGY

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length: 839

> SequenceName: 2651 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EEAGERAALS ERLFANLLKR LEGEERLLWL YREVERPLSA VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALGKTQKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR 660 RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH

<212> Type : PRT <211> Length : 839

839

SequenceName: 2652 SequenceDescription

SequenceDescription : Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAPEPY KALRDLKEAR GLLAKDLSVL ALREGLGLPP GDDPMLLAYL LDPSNTTPEG VARRYGGEWT EEAGERAALS ERLFANLWGR LEGEERLLWL YREVERPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDO LERVLFDELR LPALGKTOKT GKRSTSAAVL EALREAHPIV EKILOHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLONIPVRTP LGQRIRRAFI AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR 660

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2653 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RRDVAYLRAL SLEVAEEIAR LEAEVFRLAG 480

HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR 660

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2654 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

240
KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLEREG SLLHEFGLLE SPKALEEAPW
300
PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL
360
ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR
420
LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLEVAEEIAR LEAEVFRLAG
480
HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT
540
KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI
600
AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR
660
RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY
720
VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM
780
LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH

<212> Type : PRT <211> Length : 839

SequenceName : 2655 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLELAEEIAR LEAEVFRLAG 480

HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI 600

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

660 RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<211> Length: 839

SequenceName : 2656 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIRR LEAEVFRLAG

HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI 600

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR 660

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2657
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEEEVFRLAG

480
HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT
540

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI 600

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2658
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG

HPFNLNSRDQ LERVLFDELR LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT

<211> Length : 839

SequenceName : 2659 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVOAVYGFAK SLLKALKEDG 60 DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYOLL SDRIHVLHPE GYLITPAWLW EKYGLRPDOW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG HPFNLNSRDQ LERVLFDELG LPAIGKTOKT GKRSTSAAVL EALREAHPIV EKILOYRELT KLKSTYIDPL PDLIHPRTGR LHTRFNOTAT ATGRLSSSDP NLONIPVRTP LGORIRRAFI AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2660
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60

DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG

HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKSTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI

AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR

RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY

720 VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780

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<212> Type : PRT <211> Length : 839

SequenceName : 2661 SequenceDescription :

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<213> OrganismName : Artificial Sequence

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ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

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PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG 480

HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT 540

KLKNTYIDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFI 600

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RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY 720

VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM 780

LLQVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

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<213> OrganismName : Artificial Sequence

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

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PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL
360
ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR
420
LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG
480
HPFNLNSRDQ LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT
540
KLKSTYVDPL PDLIHPRTGR LHTRFNQTAT ATGRLSSDP NLQNIPVRTP LGQRIRRAFI
600
AEEGWLLVAL DYSQIELRVL AHLSGDENLI RVFQEGRDIH TETASWMFGV PREAVDPLMR
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RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY
720
VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM
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<212> Type : PRT <211> Length : 839

SequenceName : 2663 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGLA RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300 PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360 ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLRAL SLEVAEEIAR LEAEVFRLAG HPFNLNSRDO LERVLFDELG LPAIGKTEKT GKRSTSAAVL EALREAHPIV EKILQYRELT KLKSTYIDPL PSLVHPRTGR LHTRFNOTAT ATGRLSSSDP NLONIPVRTP LGQRIRRAFI AEEGWLLVAL DYSOJELRVL AHLSGDENLI RVFOEGRDIH TETASWMFGV PREAVDPLMR RAAKTINFGV LYGMSAHRLS QELAIPYEEA QAFIERYFQS FPKVRAWIEK TLEEGRRRGY VETLFGRRRY VPDLEARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLEEMGARM LLOVHNELVL EAPKERAEAV ARLAKEVMEG VYPLAVPLEV EVGIGEDWLS AKEHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2664
SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED GYKAVFVVFD AKAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE 120 ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE 180 QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL 240 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE 300 APWPPPEGAF VGFVLSRPEP MWAELKALAA CRDGRVHRAA DPLAGLKDLK EVRGLLAKDL 360 AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIATQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG ARMLLQVHNE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840 HH842 <212> Type : PRT <211> Length: 842 SequenceName: 2665 SequenceDescription :

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ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE
180
QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL
240
EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
300
APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL
360
AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
420
LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR

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480
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ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP
660
LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK
720
RGYVETLFGR RRYVPDLNAR VKSVREAAEA MAFNMPVQGT AADLMKLAMV KLFPRLREMG
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<211> Length : 842
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120
ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE
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QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL
240
EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL
360
AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
420
LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR
480
LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR
ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
600
AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP
LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK
RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG
 ARMLLOVANE LLLEAPOARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH
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 <212> Type : PRT
 <211> Length: 842
       SequenceName: 2667
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Sequence

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<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE
180
QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL
240
EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
300
APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL
360
AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
420
LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR
480
LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR
ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP
LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK
RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG
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<212> Type : PRT
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GYKAVFVVFD AKAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE
120
ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE
 180
QWVDFRALVG DPSDNLRGVR GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL
 240
 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
 300
 APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL
 360
 AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
 420
 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR
 LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR
 ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
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AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP
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LMRRAAKTVN FGVLYGMSAH RLSOELAIPY EEAVAFIERY FOSFPKVRAW IEKTLEEGRK
RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG
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ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE
QWVDFRALVG DPSDNLPGVK GIGEYTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL
240
EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE
APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL
AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR
LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR
ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR
AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP
LMRRAAKTVN FGVLYGMSAH RLSOELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK
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<211> Length: 842
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 60
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120 ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE 180 QWVDFRALVG DPSDNLPGVK GIREKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL 240 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL OALSLELAEE IRRLEEEVFR LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSOELAIPY EEAVAFIERY FOSFPKVRAW IEKTLEEGRK RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG ARMLLQVANE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840 $_{
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Sequence

SequenceDescription :

<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVOAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGLA RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV 600 AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR 660 RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM 780 LLOVANELLL EAPOARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839 <212> Type : PRT <211> Length: 839 SequenceName : 2672 SequenceDescription : Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSTPLFDLE EPPKRVLLVD GHHLAYRTFY ALSLTTSRGE PVQMVYGFAR SLLKALKEDG QAVVVVFDAK APSFRHEAYE AYKAGRAPTP EDFPRQLALV KRLVDLLGLV RLEAPGYEAD 120 DVLGTLAKKA EREGMEVRIL TGDRDFFOLL SEKVSVLLPD GTLVTPKDVQ EKYGVPPERW 180 VDFRALTGDR SDNIPGVAGI GEKTALRLLA EWGSVENLLK NLDRVKPDSL RRKIEAHLED 240 LHLSLDLARI RTDLPLEVDF KALRRRTPDL EGLRAFLEEL EFGSLLHEFG LLGGEKPREE 300 APWPPPEGAF VGFLLSRKEP MWAELLALAA ASGGRVHRAA DPLAGLKDLK EVRGLLAKDL AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR LAGHPFNLNS RDOLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNO TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG ARMLLOVANE LLLEAPOARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840 HH 842 <212> Type : PRT <211> Length: 842 SequenceName: 2673 SequenceDescription : Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSLPLFEPK GRVLLVDGHH LAYRTFFALK GLTTSRGEPV QAVYGFAKSL LKALREDGDV VIVVFDAKAP SFRHQTYEAY KAGRAPTPED FPRQLALIKE MVDLLGLERL EVPGFEADDV 120 LATLAKKAEK EGYEVRILTA DRDLYQLLSE RISILHPEGY LITPEWLWEK YGLKPSQWVD 180 YRALAGDPSD NIPGVKGIGE KTAAKLIREW GSLENLLKHL EQVKPASVRE KILSHMEDLK

LSLELSRVHT DLLLOVDFAR RREPDREGLK AFLERLEFGS LLHEFGLLES PVAAEEAPWP

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SREGLDLVPG DDPMLLAYLL GPSNTTPEGV ARRYGGEWTE DAAHRALLSE RLHRNLLKRL
420
EGEEKLLWLY HEVEKPLSRV LAHMEATGVR LDVAYLQALS LELAEEIRRL EEEVFRLAGH
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PFNLNSRDQL ERVLFDELRL PALKKTKKTG KRSTSAAVLE ALREAHPIVE KILQHRELTK
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LKNTYVDPLP SLVHPRTGRL HTRFNQTATA TGRLSSSDPN LQNIPVRTPL GQRIRRAFVA
600
EAGWALVALD YSQIELRVLA HLSGDENLIR VFQEGKDIHT QTASWMFGVP PEAVDPLMRR
660
AAKTVNFGVL YGMSAHRLSQ ELAIPYEEAV AFIERYFQSF PKVRAWIEKT LEEGRKRGYV
720
ETLFGRRRYV PDLNARVKSV REAAERMAFN MPVQGTAADL MKLAMVKLFP RLREMGARML
780
LQVANELLLE APQARAEEVA ALAKEAMEKA YPLAVPLEVE VGMGEDWLSA KGHHHHHH

<212> Type : PRT <211> Length : 838

SequenceName : 2674
SequenceDescription :

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<212> Type : DNA <211> Length : 2517 SequenceName : 2675 SequenceDescription :

Custom Codon

Sequence Name: 2675

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee eetetttgag eecaagggee gggteeteet ggtggaegge caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag 120 ceggtgcagg eggtctaegg ettegecaag ageeteetea aggeeeteaa ggaggaeggg 180 gacgcggtga tcgtggtctt tgacgccaag gccccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggetggeg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacetea teacecegge etggetttgg gaaaagtaeg geetgaggee egaceagtgg gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggacetgge caaggtgege acegacetge eeetggaggt ggaettegee aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agectectee acgagttegg cettetggaa agececaagg ceetggagga ggeceeetgg 900 ccccegcegg aaggggeett egtgggettt gtgettteee geaaggagee catgtgggee gatettetgg ecetggeege egecagggge ggeegegtge acegggeage agacecettg geggggetaa aggaeeteaa ggaggteegg ggeeteeteg eeaaggaeet egeegtettg gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg 1320 gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt 1380 tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc 1440 cacccettca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg 1500 cttcccgcct tggggaagac gcaaaagaca ggcaagcgct ccaccagcgc cgcggtgctg 1560 gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc 1620 aageteaaga acacetaegt ggaceeeete ecaageeteg tecaceegag gaegggeege 1680

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<211> Length : 2517 SequenceName

SequenceName : 2676 SequenceDescription :

Custom Codon

Sequence Name: 2676

Sequence

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<212> Type : DNA <211> Length : 2517

SequenceName : 2677
SequenceDescription :

Custom Codon

Sequence Name : 2677

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee eetetttgag eecaagggee gggteeteet ggtggaegge 60 caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ceggtgeagg eggtetaegg ettegeeaag ageeteetea aggeeeteaa ggaggaeggg 180 gacgcggtga tcgtggtctt tgacgccaag gccccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggetggeg egeetegagg teeegggeta egaggeggae gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacetea teacecegge etggetttgg gaaaagtacg geetgaggee egaceagtgg geogactace gggecetgae egggaegag teegacaace tteeeggggt caagggeate 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg 720 aageteteet gggaeetgge caaggtgege acegaeetge eeetggaggt ggaettegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agcctcctcc acgagttcgg ccttctggaa agccccaagg ccctggagga ggccccctgg 900 ccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc 960 gatettetgg ceetggeege egecagggge ggeegegtee acegggeece egageettat 1020 aaagccctca gggacctgaa ggaggcgcgg gggcttctcg ccaaagacct gagcgttctg 1080 gccctgaggg aaggccttgg cctcccgccc ggcgacgacc ccatgctcct cgcctacctc 1140 ctggaccett cgaacaccac ccccgagggg gtggcccggc gctacggcgg ggagtggacg gaggaggegg gggagegggc egecetttee gagaggetet tegecaacet gtgggggagg 1260 cttgaggggg aggagaggct cctttggctt taccgggagg tggagaggcc cctttccgct 1320 gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt 1380 tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc caccccttca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg cttcccgcct tggggaagac gcaaaagaca ggcaagcgct ccaccagcgc cgcggtgctg gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc aageteaaga acacetaegt ggaceceete ecaageeteg tecaeeegag gaegggeege ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc aacctgcaga acateceegt eegeaceeee ttgggecaga ggateegeeg ggeetteate gccgaggagg ggtggctatt ggtggccctg gactatagcc agatagagct cagggtgctg 1860 geceacetet eeggegaega gaacetgate egggtettee aggaggggeg ggacatecae 1920 acggagaccg ccagctggat gttcggcgtc ccccgggagg ccgtggaccc cctgatgcgc cgggcggcca agaccatcaa cttcggggtc ctctacggca tgtcggccca ccgcctctcc 2040 caggagetag ccatceetta egaggaggee caggeettea ttgagegeta ettteagage ttccccaagg tgcgggcctg gattgagaag accctggagg agggcaggag gcgggggtac gtggagaccc tetteggeeg cegeegetae gtgccagacc tagaggeeeg ggtgaagage gtgcgggagg cggccgagcg catggccttc aacatgcccg tccagggcac cgccgccgac ctcatgaagc tggctatggt gaagctcttc cccaggctgg aggaaatggg ggccaggatg ctccttcagg tccacaacga gctggtcctc gaggccccaa aagagagggc ggaggccgtg 2400 gcccggctgg ccaaggaggt catggagggg gtgtatcccc tggccgtgcc cctggaggtg gaggtgggga taggggagga ctggctctcc gccaaggagc accaccacca ccaccac 2517

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SequenceName : 2678 SequenceDescription :

Custom Codon

Sequence Name : 2678

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Sequence Name: 2680

Sequence

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Sequence Name : 2681

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Custom Codon

Sequence Name: 2682

Sequence

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Custom Codon

Sequence Name: 2684

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Sequence Name : 2685

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Sequence Name : 2686

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Custom Codon

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SequenceName : 2689
SequenceDescription :

Custom Codon

Sequence Name: 2689

Sequence

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<212> Type : DNA <211> Length : 2517

SequenceName: 2690

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SequenceDescription :

Custom Codon

Sequence Name : 2690

Sequence

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<212> Type : DNA <211> Length : 2517

SequenceName : 2691 SequenceDescription :

Custom Codon

Sequence Name : 2691

Sequence

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<212> Type : DNA
<211> Length : 2517
 SequenceName : 2692
 SequenceDescription :

Custom Codon

Sequence Name : 2692

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee cetetttgag eccaagggee gggteeteet ggtggaegge caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgcggtga tcgtggtctt tgacgccaag gcccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc aaggagetgg tggaceteet ggggetggeg egeetegagg teeegggeta egaggeggae gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacetea teaceegge etggetttgg gaaaagtaeg geetgaggee egaceagtgg 540 geogactace gggeeetgae eggggaegag teegacaace tteeeggggt caagggeate 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg 720 aageteteet gggaeetgge eaaggtgege acegaeetge eeetggaggt ggaettegee aaaaggeggg ageeegaeeg ggagaggett agggeettte tggagagget tgagtttgge 840 agcctcctcc acgagttcgg ccttctggaa agccccaagg ccctggagga ggccccctgg 900 cccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc 960 gatettetgg ceetggeege egecagggge ggeegegtge acegggeage agacecettg 1020 geggggetaa aggaceteaa ggaggteegg ggeeteeteg ceaaggacet egeegtettg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc 1140

Sequence

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<212> Type : DNA
<211> Length : 2517
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      SequenceDescription :
Custom Codon
Sequence Name: 2693
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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg ggatgctgcc cctctttgag cccaagggcc gggtcctcct ggtggacggc 60 caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg 180 gacgcggtga tcgtggtctt tgacgccaag gccccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggetggeg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc acogcogaca aagacottta coagotoott toogacogca tocacgtoot coaccoogag gggtacetea teacecegge etggetttgg gaaaagtaeg geetgaggee egaceagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg 720 aageteteet gggaeetgge caaggtgege acegaeetge eeetggaggt ggaettegee 780 aaaaggeggg ageeegaeeg ggagaggett agggeettte tggagagget tgagtttgge agectectee aegagttegg cettetggaa ageceeaagg ceetggagga ggeeeeetgg 900 cccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc 960 gatettetgg ecetggeege egecagggge ggeegegtge acegggeage agacecettg 1020 geggggetaa aggaceteaa ggaggteegg ggeeteeteg ceaaggacet egeegtettg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc 1140 ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg 1200 gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg 1320 gtcctggccc atatggaggc cacgggggtg cgcctggacg tggcctatct cagggccttg 1380 teeetggagg tggeegagga gategeeege etegaggeeg aggtetteeg eetggeegge 1440 caccccttca acctcaactc ccgggaccag ctggaaaggg tcctctttga cgagctaggg 1500 cttcccgcca tcggcaagac gcaaaagacc ggcaagcgct ccaccagcgc cgccgtcctg 1560 gaggeeetee gegaggeeea eeceategtg gagaagatee tgeagtaceg ggageteaee 1620 aagetgaaga geacetacat tgacecettg eeggacetea tecaceceag gaegggeege 1680 ctccacaccc gcttcaacca gacggccacg gccacgggca ggctaagtag ctccgatccc 1740 aacctccaga acatccccgt ccgcaccccg cttgggcaga ggatccgccg ggccttcatc 1800 gccgaggagg ggtggctatt ggtggccctg gactatagcc agatagagct cagggtgctg 1860

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<212> Type : DNA <211> Length : 2517

SequenceName : 2694 SequenceDescription :

Custom Codon

Sequence Name : 2694

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<211> Length: 2517

SequenceName : 2695
SequenceDescription :

Custom Codon

Sequence Name : 2695

Sequence

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<212> Type : DNA <211> Length : 2517

SequenceName : 2696 SequenceDescription :

Custom Codon

Sequence Name : 2696

Sequence

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SequenceName : 2697 SequenceDescription :

Custom Codon

Sequence Name: 2697

Sequence

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<212> Type : DNA <211> Length : 2517

SequenceName : 2698 SequenceDescription :

Custom Codon

Sequence Name : 2698

Sequence

<213> OrganismName : Artificial Sequence

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Custom Codon

Sequence Name: 2699

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac 60 ggccaccacc tggcctaccg caccttcttc gccctgaagg gcctcaccac gagccggggc 120 gaaccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct gaaggaggac 180 gggtacaagg ccgtcttcgt ggtctttgac gccaaggccc cctccttccg ccacgaggcc 240 tacgaggeet acaaggeggg gagggeeeeg acceeegagg actteeeeeg geagetegee 300 ctcatcaagg agctggtgga cctcctgggg tttacccgcc tcgaggtccc cggctacgag 360 gcggacgacg ttctcgccac cctggccaag aaggcggaaa aggaggggta cgaggtgcgc 420 atcctcaccg ccgaccgcga cctctaccaa ctcgtctccg accgcgtcgc cgtcctccac 480 cccgagggcc acctcatcac cccggagtgg ctttgggaga agtacggcct caggccggag 540 cagtgggtgg acttccgcgc cctcgtgggg gacccctccg acaacctccc cggggtcaag ggcatcgggg agaagaccgc cctcaagctc ctcaaggagt ggggaagcct ggaaaacctc 660

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Custom Codon

Sequence Name : 2700

Sequence

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Sequence Name : 2701

Sequence

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Custom Codon

Sequence Name: 2703

Sequence

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Custom Codon

Sequence Name : 2704

Sequence

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Sequence Name: 2705

Sequence

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Sequence Name: 2706
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720

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Sequence Name: 2708

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Custom Codon

Sequence Name : 2709

Sequence

<213> OrganismName : Artificial Sequence
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Sequence

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<211> Length: 2520

SequenceName : 2711 SequenceDescription:

Custom Codon

Sequence Name: 2711

Sequence

<213> OrganismName : Thermus thermophilus <400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED GYKAVFVVFD AKAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE APWPPPEGAF VGFVLSRPEP MWAELKALAA CRDGRVHRAA DPLAGLKDLK EVRGLLAKDL AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR LAGHPFNLNS RDQLERVLFD ELRLPALGKT QKTGKRSTSA AVLEALREAH PIVEKILQHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK 720 RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG ARMLLQVHDE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKG 836 <212> Type : PRT <211> Length: 836 SequenceName: 2712 SequenceDescription: Sequence <213> OrganismName : Thermus thermophilus <400> PreSequenceString : atgaattccg aggcgatgct tccgctcttt gaacccaaag gccgggtcct cctggtggac ggccaccacc tggcctaccg caccttcttc gccctgaagg gcctcaccac gagccggggc gaaccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct gaaggaggac gggtacaagg ccgtcttcgt ggtctttgac gccaaggccc cctccttccg ccacgaggcc 240 tacgaggcct acaaggcggg gagggccccg acccccgagg acttcccccg gcagctcgcc ctcatcaagg agctggtgga cctcctgggg tttacccgcc tcgaggtccc cggctacgag gcggacgacg ttctcgccac cctggccaag aaggcggaaa aggaggggta cgaggtgcgc atcctcaccg ccgaccgcga cctctaccaa ctcgtctccg accgcgtcgc cgtcctccac

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SequenceName: 2715 SequenceDescription :

Custom Codon

Sequence Name: 2715

Sequence

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Custom Codon

Sequence Name: 2716

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Sequence Name : 2720

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<212> Type : PRT <211> Length : 842

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1440

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Custom Codon

Sequence Name : 2725

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Custom Codon

Sequence Name: 2727

Sequence

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<211> Length : 2526
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Sequence Name: 2733

Sequence

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r s

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Custom Codon

Sequence Name: 2735

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LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR

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842

<212> Type : PRT <211> Length : 842

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<213> OrganismName : Artificial Sequence

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Custom Codon

Sequence Name: 2739

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Custom Codon

Sequence Name: 2741

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Sequence Name: 2743
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Custom Codon

Sequence Name: 2745

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<212> Type : PRT <211> Length : 836

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<213> OrganismName : Artificial Sequence

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<213> OrganismName : Artificial Sequence

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<212> Type : PRT <211> Length : 836

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<212> Type : PRT <211> Length : 836

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Sequence Name : 2753

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<213> OrganismName : Artificial Sequence

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<212> Type : PRT <211> Length : 836

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Sequence Name: 2763

Sequence

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480

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Sequence Name: 2769

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3.3

Custom Codon -----Sequence Name: 2771 Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED GYKAVIVVFD AEAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPKD VQEKYGVPPE RWVDFRALTG DRSDNIPGVA GIGEKTALRL LAEWGSVENL LKNLDRVKPD SLRRKIEAHL EDLHLSLDLA RIRTDLPLEV DFKALRRRTP DLEGLRAFLE ELEFGSLLHE FGLLGGEKPR 300 EEAPWPPPEG AFVGFLLSRK EPMWAELLAL AAASGGRVHR AADPLAGLKD LKEVRGLLAK 360 DLAVLASREG LDLVPGDDPM LLAYLLGPSN TTPEGVARRY GGEWTEDAAH RALLSERLHR 420 NLLKRLEGEE KLLWLYHEVE KPLSRVLAHM EATGVRLDVA YLQALSLELA EEIRRLEEEV 480 FRLAGHPFNL NSRDQLERVL FDELRLPALK KTKKTGKRST SAAVLEALRE AHPIVEKILQ 540 HRELTKLKNT YVDPLPSLVH PRTGRLHTRF NQTATATGRL SSSDPNLQNI PVRTPLGQRI

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SequenceName: 2772 SequenceDescription :

Sequence

660

720

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Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaatteee tgeeeetett tgageeeaag ggeegggtge ttetggtgga eggeeaeeae etggcetace gtacettttt tgccetgaag ggcetcacca ceageegegg ggageeggte caggcggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg gtgatcgtgg tetttgacgc cgaggccccc teettecgcc accagaceta cgaggcetac aaggcggggc gggctcccac ccccgaggac tttccccggc agcttgccct tatcaaggag atggtggacc ttttgggcct ggagcgcctc gaggtgccgg gctttgaagc ggatgacgtc ctggctaccc tggccaagaa ggcggaaaag gaaggctacg aagtgcgcat cctcaccgcg gaccgggacc tttaccagct tctttcggag cgaatctcca tccttcaccc ggagggttac ctgatcaccc cggagtggct ttgggagaag tacggcctca ggccggagca gtgggtggac ttccgcgccc tcgtggggga cccctccgac aacctccccg gggtcaaggg catcggggag aagaccgccc tcaagctcct caaggagtgg ggaagcctgg aaaacctcct caagaacctg gaccgggtaa agccagaaaa cgtccgggag aagatcaagg cccacctgga agacctcagg 720 eteteettgg ageteteeeg ggtgegeace gaeeteeece tggaggtgga eetegeeeag 780 gggcgggagc ccgaccggga ggggcttagg gccttcctgg agaggctgga gttcggcagc etectecacg agtteggeet eetggaggee eeegeeeee tggaggagge eeeetggeee ccgccggaag gggccttcgt gggcttcgtc ctctcccgcc ccgagcccat gtgggcggag cttaaagccc tggccgcctg caggggcggc cgcgtgcacc gggcagcaga ccccttggcg gggctaaagg acctcaagga ggtccggggc ctcctcgcca aggacctcgc cgtcttggcc 1080 tegagggagg ggetagacet egtgeeeggg gaegacecea tgeteetege etaceteetg ggcccctcga acaccaccc cgagggggtg gcgcggcgct acggggggga gtggacggag gacgccgccc accgggccct cctctcggag aggctccatc ggaacctcct taagcgcctc gagggggagg agaagctcct ttggctctac cacgaggtgg aaaagcccct ctcccgggtc ctggcccata tggaggccac cggggtacgg ctggacgtgg cctaccttca ggccctttcc ctggagcttg cggaggagat ccgccgcctc gaggaggagg tcttccgctt ggcgggccac cccttcaacc tcaactcccg ggaccagctg gaaagggtgc tctttgacga gcttaggctt cccgccttga agaagacgaa gaagacaggc aagcgctcca ccagcgccgc ggtgctggag gccctacggg aggcccaccc catcgtggag aagatcctcc agcaccggga gctcaccaag 1620 ctcaagaaca cctacgtgga cccctccca agcctcgtcc acccgaggac gggccgcctc cacacceget teaaccagae ggecaeggee acggggagge ttagtagete egaecceaae 1740

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<212> Type : DNA <211> Length : 2514

SequenceName : 2775 SequenceDescription :

Custom Codon

Sequence Name: 2775

Sequence

<213> OrganismName : Artificial Sequence

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<212> Type : PRT <211> Length : 838

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60

3135 <212> Type : DNA <211> Length : 3135 SequenceName: 2777 SequenceDescription : Custom Codon Sequence Name: 2777 Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED GYKAVFVVFD AKAPSFRHEA YEAYKAGRAP TPEDFPRQLA LIKELVDLLG FTRLEVPGYE 120 ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL 240 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE 300 APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL 360 AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR 480 LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR 540 ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR 600 AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK 720 RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG ARMLLQVANE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH HHVDMTMITP SYLGDTIEYS SYASSLVPSS DPLVTAASVL EFCRYPSHWR PLEHASRGPN 900 SPYSESYYNS LAVVLQRRDW ENPGVTQLNR LAAHPPFASW RNSEEARTDR PSQQLRSLNG EWDAPCSGAL SAAGVVVTRS VTATLASALA PAPFAFFPSF LATFAGFPRQ ALNRGLPLGF 1020 RFRALRHLDR KKLDLGDGSR SGPSP 1045 <212> Type : PRT <211> Length : 1045 SequenceName: 2778 SequenceDescription : Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg ggatgctgcc cctctttgag cccaagggcc gggtcctcct ggtggacggc caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag 120 ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg 180 gacgcggtga tcgtggtctt tgacgccaag gccccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagctgg tggacctcct ggggttcacg cgcctcgagg tcccgggcta cgaggcggac gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacctca tcaccccggc ctggctttgg gaaaagtacg gcctgaggcc cgaccagtgg gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggaeetgge caaggtgege aeegaeetge eeetggaggt ggaettegee aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agcctcctcc acgagttcgg ccttctggaa agccccaagg ccctggagga ggccccctgg ccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc gatcttctgg ccctggccgc cgccaggggc ggccgcgtgc accgggcagc agaccccttg gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc caccccttca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg 1500 cttcccqcct tqaaqaagac gaagaagaca ggcaagcgct ccaccagcgc cgcggtgctg gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc aagetcaaga acacetacgt ggaceceete ccaageeteg tecacecgag gacgggeege 1680 ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc aacctgcaga acatccccgt ccgcaccccc ttgggccaga ggatccgccg ggccttcgtg 1800 gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acccagaccg caagetggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 cgggcggcca agacggtgaa cttcggcgtc ctctacggca tgtccgccca taggctctcc 2040 caggagettg ccateceeta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac 2160 gtggaaaccc tcttcggaag aaggcgctac gtgcccgacc tcaacgcccg ggtgaagagc 2220 gtcagggagg ccgcggagcg catggccttc aacatgcccg tccagggcac cgccgccgac 2280 ctcatgaagc tegecatggt gaagetette eecegeetee gggagatggg ggeeegeatg 2340 ctcctccagg tcgccaacga gctcctcctg gaggcccccc aagcgcgggc cgaggaggtg 2400 geggetttgg ccaaggagge catggagaag geetateece tegeegtgee eetggaggtg 2460 gaggtgggga tggggggggagga ctggctttcc gccaagggtc accaccacca ccaccac 2517

Custom Codon

780

Sequence Name: 2779

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG DAVIVVFDAK APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGFT RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180 ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300 PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360 ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420 LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY

VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM

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<212> Type : PRT <211> Length : 839

SequenceName : 2780
SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSTPLFDLE EPPKRVLLVD GHHLAYRTFY ALSLTTSRGE PVQMVYGFAR SLLKALKEDG 60 QAVVVVFDAK APSFRHEAYE AYKAGRAPTP EDFPRQLALV KRLVDLLGFT RLEAPGYEAD

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VDFRALTGDR SDNIPGVAGI GEKTALRLLA EWGSVENLLK NLDRVKPDSL RRKIEAHLED 240

LHLSLDLARI RTDLPLEVDF KALRRRTPDL EGLRAFLEEL EFGSLLHEFG LLGGEKPREE 300

APWPPPEGAF VGFLLSRKEP MWAELLALAA ASGGRVHRAA DPLAGLKDLK EVRGLLAKDL 360

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LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR 540

ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR 600

AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP

LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK

RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG 780

ARMLLQVANE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840

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842

<212> Type : PRT <211> Length : 842

SequenceName : 2781
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<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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LATLAKKAEK EGYEVRILTA DRDLYQLLSE RISILHPEGY LITPEWLWEK YGLKPSQWVD 180

YRALAGDPSD NIPGVKGIGE KTAAKLIREW GSLENLLKHL EQVKPASVRE KILSHMEDLK

LSLELSRVHT DLLLQVDFAR RREPDREGLK AFLERLEFGS LLHEFGLLES PVAAEEAPWP 300

PPEGAFVGYV LSRPEPMWAE LNALAAAWGG RVHRAADPLA GLKDLKEVRG LLAKDLAVLA 360
SREGLDLVPG DDPMLLAYLL GPSNTTPEGV ARRYGGEWTE DAAHRALLSE RLHRNLLKRL 420
EGEEKLLWLY HEVEKPLSRV LAHMEATGVR LDVAYLQALS LELAEEIRRL EEEVFRLAGH 480
PFNLNSRDQL ERVLFDELRL PALKKTKKTG KRSTSAAVLE ALREAHPIVE KILQHRELTK 540
LKNTYVDPLP SLVHPRTGRL HTRFNQTATA TGRLSSSDPN LQNIPVRTPL GQRIRRAFVA 600
EAGWALVALD YSQIELRVLA HLSGDENLIR VFQEGKDIHT QTASWMFGVP PEAVDPLMRR 660
AAKTVNFGVL YGMSAHRLSQ ELAIPYEEAV AFIERYFQSF PKVRAWIEKT LEEGRKRGYV 720
ETLFGRRRYV PDLNARVKSV REAAERMAFN MPVQGTAADL MKLAMVKLFP RLREMGARML 780
LQVANELLLE APQARAEEVA ALAKEAMEKA YPLAVPLEVE VGMGEDWLSA KGHHHHHH 838

<212> Type : PRT <211> Length : 838

SequenceName : 2782 SequenceDescription :

SequenceName: 2783

Sequence

_____ <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSEAMLPLF EPKGRVLLVD GHHLAYRTFF ALKGLTTSRG EPVQAVYGFA KSLLKALKED 60 GYKAVFVVFD AEAPSFRHEA YEAYKAGRAP TPEDFPROLA LIKELVDLLG FTRLEVPGYE ADDVLATLAK KAEKEGYEVR ILTADRDLYQ LVSDRVAVLH PEGHLITPEW LWEKYGLRPE QWVDFRALVG DPSDNLPGVK GIGEKTALKL LKEWGSLENL LKNLDRVKPE NVREKIKAHL 240 EDLRLSLELS RVRTDLPLEV DLAQGREPDR EGLRAFLERL EFGSLLHEFG LLEAPAPLEE APWPPPEGAF VGFVLSRPEP MWAELKALAA CRGGRVHRAA DPLAGLKDLK EVRGLLAKDL 360 AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL 420 LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL OALSLELAEE IRRLEEEVFR LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILOHR ELTKLKNTYV DPLPSLVHPR TGRLHTRFNQ TATATGRLSS SDPNLQNIPV RTPLGQRIRR AFVAEAGWAL VALDYSQIEL RVLAHLSGDE NLIRVFQEGK DIHTQTASWM FGVPPEAVDP LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVOGT AADLMKLAMV KLFPRLREMG ARMLLQVANE LLLEAPQARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH 840 HH 842 <212> Type : PRT <211> Length: 842

SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee cetetttgag eccaagggee gggteeteet ggtggaegge caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgcggtga tcgtggtctt tgacgccgag gcccctcct tccgccacga ggcctacggg gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaeeteet ggggetggeg egeetegagg teeegggeta egaggeggae gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacctca tcaccccggc ctggctttgg gaaaagtacg gcctgaggcc cgaccagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggacetgge caaggtgege acegacetge eeetggaggt ggacttegee aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agectectee acgagttegg cettetggaa agececaagg eeetggagga ggeeeeetgg cccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc gatettetgg ccctggccgc cgccaggggc ggccgcgtgc accgggcagc agaccccttg 1020 geggggetaa aggaeeteaa ggaggteegg ggeeteeteg ceaaggaeet egeegtettg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt tecetggage ttgeggagga gateegeege etegaggagg aggtetteeg ettggeggge caccecttca acctcaacte cegggaccag etggaaaggg tgetetttga egagettagg 1500 cttcccgcct tgaagaagac gaagaagaca ggcaagcgct ccaccagcgc cgcggtgctg gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc 1620 aageteaaga acacetaegt ggaceeete ecaageeteg tecaceegag gaegggeege 1680 ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc 1740 aacctgcaga acatccccgt ccgcaccccc ttgggccaga ggatccgccg ggccttcgtg 1800 gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acccagaccg caagctggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 cgggcggcca agacggtgaa cttcggcgtc ctctacggca tgtccgccca taggctctcc 2040 caggagettg ceatececta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac 2160 gtggaaaccc tcttcggaaq aaggcgctac gtgcccgacc tcaacgcccg ggtgaagagc 2220 gtcagggagg ccgcggagcg catggccttc aacatgcccg tccagggcac cgccgccqac 2280 ctcatgaagc tcgccatggt gaagetette eccegeetee gggagatggg ggeeegeatg ctcctccagg tcgccaacga gctcctcctg gaggcccccc aagcgcgggc cgaggaggtg geggetttgg ccaaggagge catggagaag geetateece tegeegtgee cetggaggtg 2460 gaggtgggga tgggggagga ctggctttcc gccaagggtc accaccacca ccaccac 2517 <212> Type : DNA <211> Length : 2517 SequenceName: 2784

SequenceDescription:

Custom Codon

Sequence Name: 2784

Sequence

<213> OrganismName : Artificial Sequence

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DVLASLAKKA EKEGYEVRIL TADKDLYOLL SDRIHVLHPE GYLITPAWLW EKYGLRPDOW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

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KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV 600 AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length: 839

> SequenceName: 2785 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcca ccccactttt tgacctggag gaacccccca agegggtgct tctggtggac ggccaccacc tggcctaccg caccttctat gccctgagcc tcaccacctc ccggggggag 120 ccggtgcaga tggtctacgg cttcgcccgg agcctcctca aggccttgaa ggaggacgga caggeggtgg tegtggtett tgaegeegag geceeeteet teegeeacga ggeetaegag gcctacaagg cgggccgggc ccccaccccg gaggacttcc cccgccagct cgccttggtc aageggetgg tggaeettet gggeetggte egeetegagg eeeeggggta egaggeggae gacgtcctgg gcaccctggc caagaaggcc gaaagggagg ggatggaggt gcgcatcctc 420 acgggagacc gggacttctt ccagctcctc tccgagaagg tctcggtcct cctgccggac gggaccetgg teaceceaaa ggacgteeag gagaagtaeg gggtgeeece ggagegetgg gtggacttcc gcgccctcac gggggaccgc tcggacaaca tccccggggt ggcggggata ggggagaaga ccgcccttcg actcctcgca gagtggggga gcgtggaaaa cctcctgaag aacctggacc gggtaaagcc ggactcgctc cggcgcaaga tagaggcgca cctcgaggac ctccacctct ccttagacct ggcccgcatc cgcaccgacc tccccctgga ggtggacttt aaggeeetge geegeaggae eeeegaeetg gagggeetga gggeettttt ggaggagetg gagtteggaa geeteeteea egagttegge eteetgggag gggagaagee eegggaggag 900 gccccctggc ccccgcccga aggggccttc gtgggcttcc tcctttcccg caaggagccc 960 atgtgggcgg agettetgge cetggeggeg geetegggeg geegegtgea eegggeagea 1020 gaccccttgg cggggctaaa ggacctcaag gaggtccggg gcctcctcgc caaggacctc 1080 gccgtcttgg cctcgaggga ggggctagac ctcgtgcccg gggacgaccc catgctcctc 1140 gectacetee tggteeecte gaacaceace eeegaggggg tggegeggeg etaegggggg 1200 gagtggacgg aggacgccgc ccaccgggcc ctcctctcgg agaggctcca tcggaacctc

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<212> Type : DNA
<211> Length : 2526
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      SequenceDescription :
Custom Codon
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Sequence Name: 2786
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Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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120
DVLGTLAKKA EREGMEVRIL TGDRDFFQLL SEKVSVLLPD GTLVTPKDVQ EKYGVPPERW
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VDFRALTGDR SDNIPGVAGI GEKTALRLLA EWGSVENLLK NLDRVKPDSL RRKIEAHLED
240
LHLSLDLARI RTDLPLEVDF KALRRRTPDL EGLRAFLEEL EFGSLLHEFG LLGGEKPREE
300
APWPPPEGAF VGFLLSRKEP MWAELLALAA ASGGRVHRAA DPLAGLKDLK EVRGLLAKDL
360
AVLASREGLD LVPGDDPMLL AYLLGPSNTT PEGVARRYGG EWTEDAAHRA LLSERLHRNL
LKRLEGEEKL LWLYHEVEKP LSRVLAHMEA TGVRLDVAYL QALSLELAEE IRRLEEEVFR
LAGHPFNLNS RDQLERVLFD ELRLPALKKT KKTGKRSTSA AVLEALREAH PIVEKILQHR
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LMRRAAKTVN FGVLYGMSAH RLSQELAIPY EEAVAFIERY FQSFPKVRAW IEKTLEEGRK
RGYVETLFGR RRYVPDLNAR VKSVREAAER MAFNMPVQGT AADLMKLAMV KLFPRLREMG
ARMLLOVANE LLLEAPOARA EEVAALAKEA MEKAYPLAVP LEVEVGMGED WLSAKGHHHH
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842
<212> Type : PRT
<211> Length : 842
      SequenceName: 2787
      SequenceDescription :
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Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattccc tgcccctctt tgagcccaag ggccgggtgc ttctggtgga cggccaccac ctggcctacc gtaccttttt tgccctgaag ggcctcacca ccagccgcgg ggagccggtc caggcggtgt acgggtttgc caagagcctt ttgaaggcgc taagggaaga cggggatgtg gtgatcgtgg tctttgacgc cgaggccccc tccttccgcc accagaccta cgaggcctac aaggegggge gggeteeeae eeeegaggae ttteeeegge agettgeeet tateaaggag atggtggacc ttttgggcct ggagcgcctc gaggtgccgg gctttgaagc ggatgacgtc ctggctaccc tggccaagaa ggcggaaaag gaaggctacg aagtgcgcat cctcaccgcg gaccgggacc tttaccagct tctttcggag cgaatctcca tccttcaccc ggagggttac ctgatcaccc cggagtggct ttgggagaag tatgggctta agccttccca gtgggtggac taccgggcct tggccgggga cccttccgac aacatccccg gcgtgaaggg catcggggag aagacggcgg ccaagctgat ccgggagtgg ggaagcctgg aaaaccttct taagcacctg 660 gaacaggtga aacctgcctc cgtgcgggag aagatcctta gccacatgga ggacctcaag 720 ctatecetgg agetateceg ggtgcacaeg gaettgetee tteaggtgga ettegeeegg

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<211> Length : 2514 SequenceName: 2788 SequenceDescription : Custom Codon ______ Sequence Name: 2788

Sequence

_____ <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSLPLFEPK GRVLLVDGHH LAYRTFFALK GLTTSRGEPV QAVYGFAKSL LKALREDGDV 60 VIVVFDAEAP SFRHQTYEAY KAGRAPTPED FPRQLALIKE MVDLLGLERL EVPGFEADDV LATLAKKAEK EGYEVRILTA DRDLYQLLSE RISILHPEGY LITPEWLWEK YGLKPSQWVD YRALAGDPSD NIPGVKGIGE KTAAKLIREW GSLENLLKHL EOVKPASVRE KILSHMEDLK LSLELSRVHT DLLLQVDFAR RREPDREGLK AFLERLEFGS LLHEFGLLES PVAAEEAPWP PPEGAFVGYV LSRPEPMWAE LNALAAAWGG RVHRAADPLA GLKDLKEVRG LLAKDLAVLA SREGLDLVPG DDPMLLAYLL GPSNTTPEGV ARRYGGEWTE DAAHRALLSE RLHRNLLKRL EGEEKLLWLY HEVEKPLSRV LAHMEATGVR LDVAYLQALS LELAEEIRRL EEEVFRLAGH PFNLNSRDQL ERVLFDELRL PALKKTKKTG KRSTSAAVLE ALREAHPIVE KILQHRELTK LKNTYVDPLP SLVHPRTGRL HTRFNQTATA TGRLSSSDPN LONIPVRTPL GORIRRAFVA EAGWALVALD YSQIELRVLA HLSGDENLIR VFQEGKDIHT QTASWMFGVP PEAVDPLMRR AAKTVNFGVL YGMSAHRLSO ELAIPYEEAV AFIERYFOSF PKVRAWIEKT LEEGRKRGYV ETLFGRRRYV PDLNARVKSV REAAERMAFN MPVQGTAADL MKLAMVKLFP RLREMGARML 780 LQVANELLLE APQARAEEVA ALAKEAMEKA YPLAVPLEVE VGMGEDWLSA KGHHHHHH

<212> Type : PRT <211> Length: 838

SequenceName: 2789 SequenceDescription :

Sequence ------

838

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg ggatgctgcc cctctttgag cccaagggcc gggtcctcct ggtggacggc 60 caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgeggtga tegtggtett tgacgeegag geeeceteet teegeeacga ggeetacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggtteaeg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag 480 gggtacetea teaceeegge etggetttgg gaaaagtacg geetgaggee egaceagtgg gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggacetgge caaggtgege accgacetge eeetggaggt ggacttegee aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agectectee aegagttegg cettetggaa ageceeaagg ceetggagga ggeeceetgg ecccegeegg aaggggeett egtgggettt gtgettteee geaaggagee catgtgggee gatettetgg ceetggeege egecagggge ggeegegtge acegggeage agacecettg gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc ctcgagggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt 1380 tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc cacccettca accteaacte eegggaceag etggaaaggg tgetetttga egagettagg cttcccgcct tgaagaagac gaagaagaca ggcaagcgct ccaccagcgc cgcggtgctg gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc aageteaaga acacetaegt ggaceeete ecaageeteg tecaceegag gaegggeege ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc aacctgcaga acateccegt eegcaceeec ttgggccaga ggateegeeg ggeettegtg gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac acccagaccg caagctggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 egggeggeea agaeggtgaa etteggegte etetaeggea tgteegeeca taggetetee 2040 caggagettg ceateceeta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac 2160

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SequenceName: 2790 SequenceDescription :

Custom Codon

Sequence Name: 2790

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DVLASLAKKA EKEGYEVRIL TADKDLYOLL SDRIHVLHPE GYLITPAWLW EKYGLRPDOW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG

HPFNLNSRDO LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKNTYVDPL PSLVHPRTGR LHTRFNOTAT ATGRLSSSDP NLONIPVRTP LGORIRRAFV

AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR

RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY

VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM

LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length: 839

SequenceName: 2791 SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg aggcgatgct gcccctcttt gagcccaagg gccgggtcct cctggtggac ggccaccacc tggcctaccg caccttccac gccctgaagg gcctcaccac cagccggggg 120 gageeggtge aggeggteta eggettegee aagageetee teaaggeeet caaggaggae 180 ggggacgcgg tgatcgtggt ctttgacgcc gaggccccct ccttccgcca cgaggcctac 240 ggggggtaca aggcgggccg ggcccccacg ccggaggact ttccccggca actcgccctc 300 atcaaggagc tggtggacct cctggggttc acgcgcctcg aggtcccggg ctacgaggcg gacgacgtcc tggccagcct ggccaagaag gcggaaaagg agggctacga ggtccgcatc etcacegeeg acaaagacet ttaceagete ettteegace geatecaegt eetceacee gaggggtacc tcatcacccc ggcctggctt tgggaaaagt acggcctgag gcccgaccag 540 tgggccgact accgggccct gaccggggac gagtccgaca accttcccgg ggtcaagggc atcggggaga agacggcgag gaagcttctg gaggagtggg ggagcctgga agccctcctc aagaacctgg accggctgaa gcccgccatc cgggagaaga tcctggccca catggacgat ctgaagetet cetgggacet ggecaaggtg cgcaccgace tgcccctgga ggtggactte gccaaaaggc gggagcccga ccgggagagg cttagggcct ttctggagag gcttgagttt ggcagcctcc tccacgagtt cggccttctg gaaagcccca aggccctgga ggaggccccc 900 tggcccccgc cggaaggggc cttcgtgggc tttgtgcttt cccgcaagga gcccatgtgg 960 geogatette tggecetgge egeegeeagg ggeggeegeg tgeaceggge ageagaeeee ttggcggggc taaaggacct caaggaggtc cggggcctcc tcgccaagga cctcgccgtc 1080 ttggcctcga gggagggct agacctcgtg cccggggacg accccatgct cctcgcctac ctcctgggcc cctcgaacac caccccgag ggggtggcgc ggcgctacgg gggggagtgg acggaggacg ccgcccaccg ggccctcctc tcggagaggc tccatcggaa cctccttaag cgcctcgagg gggaggagaa gctcctttgg ctctaccacg aggtggaaaa gcccctctcc 1320 cgggtcctgg cccatatgga ggccaccggg gtacggctgg acgtggccta ccttcaggcc 1380 ettteeetgg agettgegga ggagateege egeetegagg aggaggtett eegettggeg ggccacccct tcaacctcaa ctcccgggac cagctggaaa gggtgctctt tgacgagctt 1500 aggetteecg cettgaagaa gacgaagaag acaggeaage getecaceag egeegeggtg 1560 ctggaggccc tacgggaggc ccaccccatc gtggagaaga tcctccagca ccgggagctc 1620 accaagetea agaacaceta egtggacece eteccaagee tegtecacee gaggaeggge cgcctccaca cccgcttcaa ccagacggcc acggccacgg ggaggcttag tagctccgac 1740

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<212> Type : DNA <211> Length : 2520

SequenceName : 2792
SequenceDescription :

Custom Codon

Sequence Name: 2792

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DDVLASLAKK AEKEGYEVRI LTADKDLYQL LSDRIHVLHP EGYLITPAWL WEKYGLRPDQ

WADYRALTGD ESDNLPGVKG IGEKTARKLL EEWGSLEALL KNLDRLKPAI REKILAHMDD

LKLSWDLAKV RTDLPLEVDF AKRREPDRER LRAFLERLEF GSLLHEFGLL ESPKALEEAP

WPPPEGAFVG FVLSRKEPMW ADLLALAAAR GGRVHRAADP LAGLKDLKEV RGLLAKDLAV

LASREGLDLV PGDDPMLLAY LLGPSNTTPE GVARRYGGEW TEDAAHRALL SERLHRNLLK

420 RLEGEEKLLW LYHEVEKPLS RVLAHMEATG VRLDVAYLQA LSLELAEEIR RLEEEVFRLA

480 GHPFNLNSRD QLERVLFDEL RLPALKKTKK TGKRSTSAAV LEALREAHPI VEKILQHREL

540 TKLKNTYVDP LPSLVHPRTG RLHTRFNQTA TATGRLSSSD PNLQNIPVRT PLGQRIRRAF 600

VAEAGWALVA LDYSQIELRV LAHLSGDENL IRVFQEGKDI HTQTASWMFG VPPEAVDPLM

660 RRAAKTVNFG VLYGMSAHRL SQELAIPYEE AVAFIERYFQ SFPKVRAWIE KTLEEGRKRG YVETLFGRRR YVPDLNARVK SVREAAERMA FNMPVOGTAA DLMKLAMVKL FPRLREMGAR

780

MLLQVANELL LEAPQARAEE VAALAKEAME KAYPLAVPLE VEVGMGEDWL SAKGHHHHHH 840

<212> Type : PRT <211> Length: 840

> SequenceName : 2793 SequenceDescription :

Sequence <213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee cetetttgag ceeaagggee gggteeteet ggtggaegge caccacctgg cctaccgcac cttctttgcc ctgaagggcc tcaccaccag ccggggggag 120 ceggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgeggtga tegtggtett tgaegeegag geceeeteet teegeeaega ggeetaeggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaeeteet ggggtteaeg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag 480 gggtacetea teaceegge etggetttgg gaaaagtacg geetgaggee egaceagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggaeetgge caaggtgege acegaeetge eeetggaggt ggaettegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc 840 agcctcctcc acgagttcgg cettctggaa agccccaagg ccctggagga ggccccctgg 900 eccegeegg aaggggeett egtgggettt gtgettteee geaaggagee catgtgggee 960 gatettetgg ccetggcege egecagggge ggcegegtge acegggeage agacecettg 1020 gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc 1140 ctgggcccct cgaacaccac ccccgaggg gtggcgcggc gctacggggg ggagtggacg 1200 gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg 1320

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2280
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2400
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2517
<212> Type : DNA
<211> Length : 2517
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SequenceDescription : Custom Codon

Sequence Name: 2794

SequenceName: 2794

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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DAVIVVFDAE APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGFT RLEVPGYEAD
120
DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW
180
ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLOAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR 660 RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY 720 VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length: 839

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SequenceName : 2796 SequenceDescription :

Custom Codon

Sequence Name: 2796

Sequence

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240

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ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

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HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT

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RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY 720

VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM 780

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<212> Type : PRT <211> Length : 839

SequenceName : 2797 SequenceDescription :

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<213> OrganismName : Artificial Sequence

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aaggagetgg tggaceteet ggggtteaeg egeetegagg teeegggeta egaggeggae 360

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<211> Length : 2517
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120
DVLATLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDOW
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ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL
240
KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW
300
PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL
360
ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR
420
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480
HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILOHRELT
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KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLONIPVRTP LGORIRRAFV
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AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TOTASWMFGV PPEAVDPLMR
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<211> Length: 839
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SequenceName : 2800 SequenceDescription :

Custom Codon

Sequence Name : 2800

Sequence

<213> OrganismName : Artificial Sequence

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660 RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY

720 VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM 780 LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length : 839

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<212> Type : DNA <211> Length : 2517

SequenceName : 2802 SequenceDescription :

Custom Codon

Sequence Name : 2802

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

240 KLSWDLAKVR TDLPLEVDFA KRREPDREGL KAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR
420
LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG
480
HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT
540
KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV
600
AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR
660
RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY
720
VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM
780
LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH
839

<212> Type : PRT <211> Length : 839

SequenceName : 2803
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattegg ggatgetgee cetetttgag eccaagggee gggteeteet ggtggaegge 60 caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg gacgeggtga tegtggtett tgacgeegag geceeteet teegeeaega ggeetaeggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggtteaeg egeetegagg teeegggeta egaggeggae gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag gggtacctca tcaccccggc ctggctttgg gaaaagtacg gcctgaggcc cgaccagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag 660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggaeetgge caaggtgege acegaeetge eeetggaggt ggaettegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc agcctcctcc acgagttcgg ccttctggga ggggagaagc cccgggagga ggccccctgg 900 ccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc gatettetgg ccetggcege egecagggge ggeegegtge acegggeage agaeceettg gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cqcctacctc 1140 ctgggcccct cgaacaccac ccccgaggg gtggcgcgc gctacggggg ggaqtqqacq 1200 gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg 1320 gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt 1380 tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc 1440 caccccttca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg 1500 ettecegeet tgaagaagae gaagaagaea ggeaageget ceaceagege egeggtgetg 1560 gaggecetae gggaggecea ecceategtg gagaagatee tecageaceg ggageteace 1620 aagctcaaga acacctacgt ggaccccctc ccaagcctcg tccacccgag gacgggccgc 1680 ctccacaccc gcttcaacca gacggccacg gccacgggga ggcttagtag ctccgacccc 1740 aacctgcaga acateceegt eegeaceeee ttgggecaga ggateegeeg ggeettegtg 1800 gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acccagaccg caagetggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 egggeggeea agaeggtgaa etteggegte etetaeggea tgteegeeea taggetetee 2040 caggagettg ccatececta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac 2160 gtggaaaccc tcttcggaag aaggcgctac gtgcccgacc tcaacgcccg ggtgaagagc 2220 gtcagggagg ccgcggagcg catggccttc aacatgcccg tccagggcac cgccgccgac 2280 ctcatgaagc tcgccatggt gaagctcttc ccccgcctcc gggagatggg ggcccgcatg 2340 ctcctccagg tcgccaacga gctcctcctg gaggcccccc aagcgcgggc cgaggaggtg 2400 gcggctttgg ccaaggaggc catggagaag gcctatcccc tcgccgtgcc cctggaggtg 2460 gaggtgggga tgggggggga ctggctttcc gccaagggtc accaccacca ccaccac 2517 <212> Type : DNA <211> Length : 2517 SequenceName: 2804 SequenceDescription : Custom Codon Sequence Name: 2804

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVOAVYGFAK SLLKALKEDG DAVIVVFDAE APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGFT RLEVPGYEAD 120 DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW 180 ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL 240 KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLG GEKPREEAPW 300 PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL 360 ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420 LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV 600 AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY 720 VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839 <212> Type : PRT <211> Length: 839 SequenceName: 2805 SequenceDescription: Sequence ------<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg ggatgctgcc cctctttgag cccaagggcc gggtcctcct ggtggacggc 60 caccacctgg cctaccgcac cttccacgcc ctgaagggcc tcaccaccag ccggggggag ccggtgcagg cggtctacgg cttcgccaag agcctcctca aggccctcaa ggaggacggg 180 gacgcggtga tcgtggtctt tgacgccgag gccccctcct tccgccacga ggcctacggg 240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc 300 aaggagetgg tggaceteet ggggtteacg egeetegagg teeegggeta egaggeggae 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag 480 gggtacctca tcaccccggc ctggctttgg gaaaagtacg gcctgaggcc cgaccagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600

ggggagaaga cggcgaggaa gcttctggag gagtggggga gcctggaagc cctcctcaag

a.

660 aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg aageteteet gggaeetgge eaaggtgege acegaeetge eeetggaggt ggaettegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc 840 agcetectee aegagttegg cettetggaa agceceaagg ceetggagga ggeeceetgg 900 cccccgccgg aaggggcctt cgtgggcttt gtgctttccc gcaaggagcc catgtgggcc gatettetgg ecetggeege etgeaggge ggeegegtge acegggeage agacecettg 1020 gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg 1080 gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc 1140 ctgggcccct cgaacaccac ccccgagggg gtggcgcggc gctacggggg ggagtggacg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc 1260 ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc caccccttca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg ettecegeet tgaagaagae gaagaagaea ggeaageget ceaceagege egeggtgetg gaggccctac gggaggccca ccccatcgtg gagaagatcc tccagcaccg ggagctcacc 1620 aageteaaga acacetaegt ggaceeecte ceaageeteg tecaceegag gaegggeege 1680 ctccacacce getteaacca gaeggeeacg gecaegggga ggettagtag etecgaecee aacctgcaga acatececgt eegcaeeeee ttgggecaga ggateegeeg ggeettegtg 1800 gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acccagaccg caagctggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 cgggcggcca agacggtgaa cttcggcgtc ctctacggca tgtccgccca taggctctcc 2040 caggagettg ccateceeta egaggaggeg gtggeettta tagagegeta ettecaaage 2100 ttccccaagg tgcgggcctg gatagaaaag accctggagg aggggaggaa gcggggctac 2160 gtggaaaccc tcttcggaag aaggcgctac gtgcccgacc tcaacgcccg ggtgaagagc 2220 gtcagggagg ccgcggagcg catggccttc aacatgcccg tccagggcac cgccgccgac 2280 ctcatgaagc tcgccatggt gaagctcttc ccccgcctcc gggagatggg ggcccgcatg 2340 ctcctccagg tcgccaacga gctcctcctg gaggcccccc aagcgcgggc cgaggaggtg gcggctttgg ccaaggaggc catggagaag gcctatcccc tcgccgtgcc cctggaggtg 2460

gaggtgggga tggggggga ctggctttcc gccaagggtc accaccacca ccaccac 2517

<212> Type : DNA <211> Length : 2517

SequenceName : 2806 SequenceDescription :

Custom Codon

Sequence Name : 2806

Sequence

<213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60 DAVIVVFDAE APSFRHEAYG GYKAGRAPTP EDFPRQLALI KELVDLLGFT RLEVPGYEAD

DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW

ADYRALTGDE SDNLPGVKGI GEKTARKLLE EWGSLEALLK NLDRLKPAIR EKILAHMDDL

KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW

PPPEGAFVGF VLSRKEPMWA DLLALAACRG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL

ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR 420

LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG 480

HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILQHRELT

KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV 600

AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR 660

RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY 720

VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM 780

LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2807
SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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240 gggtacaagg cgggccgggc ccccacgccg gaggactttc cccggcaact cgccctcatc aaggagctgg tggacctcct ggggttcacg cgcctcgagg tcccgggcta cgaggcggac 360 gacgtcctgg ccagcctggc caagaaggcg gaaaaggagg gctacgaggt ccgcatcctc 420 accgccgaca aagaccttta ccagctcctt tccgaccgca tccacgtcct ccaccccgag 480 gggtacctca tcaccccggc ctggctttgg gaaaagtacg gcctgaggcc cgaccagtgg 540 gccgactacc gggccctgac cggggacgag tccgacaacc ttcccggggt caagggcatc 600 ggggagaaga cggcgaggaa gcttctgaag gagtggggga gcctggaagc cctcctcaag aacctggacc ggctgaagcc cgccatccgg gagaagatcc tggcccacat ggacgatctg 720 aagcteteet gggacetgge caaggtgege acegacetge eeetggaggt ggacttegee 780 aaaaggcggg agcccgaccg ggagaggctt agggcctttc tggagaggct tgagtttggc 840 agceteetee aegagttegg cettetggaa ageeceaagg ceetggagga ggeeceetgg 900 ecceggegg aaggggeett egtgggettt gtgettteee geaaggagee eatgtgggee gatettetgg ecetggeege egecagggge ggeegegtge acegggeage agaeceettg gcggggctaa aggacctcaa ggaggtccgg ggcctcctcg ccaaggacct cgccgtcttg gcctcgaggg aggggctaga cctcgtgccc ggggacgacc ccatgctcct cgcctacctc etgggeeeet egaacaceae eeeegaggg gtggegegge getaeggggg ggagtggaeg gaggacgccg cccaccgggc cctcctctcg gagaggctcc atcggaacct ccttaagcgc ctcgaggggg aggagaagct cctttggctc taccacgagg tggaaaagcc cctctcccgg gtcctggccc atatggaggc caccggggta cggctggacg tggcctacct tcaggccctt tccctggagc ttgcggagga gatccgccgc ctcgaggagg aggtcttccg cttggcgggc cacccettca acctcaactc ccgggaccag ctggaaaggg tgctctttga cgagcttagg ettecegeet tgaagaagae gaagaagaea ggeaageget ceaceagege egeggtgetg gaggeeetae gggaggeeea eeceategtg gagaagatee teeageaeeg ggageteaee 1620 aageteaaga acacetaegt ggaceeeete eeaageeteg teeaceegag gaegggeege 1680 etccacacce getteaacca gaeggeeacg gecaegggga ggettagtag etcegaecce aacctgcaga acateceegt eegeaceeee ttgggecaga ggateegeeg ggeettegtg gccgaggcgg gttgggcgtt ggtggccctg gactatagcc agatagagct ccgcgtcctc 1860 gcccacctct ccggggacga aaacctgatc agggtcttcc aggaggggaa ggacatccac 1920 acccagaccg caagetggat gttcggcgtc cccccggagg ccgtggaccc cctgatgcgc 1980 egggeggeea agaeggtgaa etteggegte etetaeggea tgteegeeea taggetetee 2040

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<212> Type : DNA <211> Length : 2517

SequenceName : 2808
SequenceDescription :

Custom Codon

Sequence Name : 2808

Sequence

_____ <213> OrganismName : Artificial Sequence <400> PreSequenceString : MNSGMLPLFE PKGRVLLVDG HHLAYRTFHA LKGLTTSRGE PVQAVYGFAK SLLKALKEDG 60 DAVIVVFDAE APSFRHEAYG GYKAGRAPTP EDFPROLALI KELVDLLGFT RLEVPGYEAD DVLASLAKKA EKEGYEVRIL TADKDLYQLL SDRIHVLHPE GYLITPAWLW EKYGLRPDQW ADYRALTGDE SDNLPGVKGI GEKTARKLLK EWGSLEALLK NLDRLKPAIR EKILAHMDDL KLSWDLAKVR TDLPLEVDFA KRREPDRERL RAFLERLEFG SLLHEFGLLE SPKALEEAPW 300 PPPEGAFVGF VLSRKEPMWA DLLALAAARG GRVHRAADPL AGLKDLKEVR GLLAKDLAVL ASREGLDLVP GDDPMLLAYL LGPSNTTPEG VARRYGGEWT EDAAHRALLS ERLHRNLLKR LEGEEKLLWL YHEVEKPLSR VLAHMEATGV RLDVAYLQAL SLELAEEIRR LEEEVFRLAG HPFNLNSRDQ LERVLFDELR LPALKKTKKT GKRSTSAAVL EALREAHPIV EKILOHRELT KLKNTYVDPL PSLVHPRTGR LHTRFNQTAT ATGRLSSSDP NLQNIPVRTP LGQRIRRAFV AEAGWALVAL DYSQIELRVL AHLSGDENLI RVFQEGKDIH TQTASWMFGV PPEAVDPLMR RAAKTVNFGV LYGMSAHRLS QELAIPYEEA VAFIERYFQS FPKVRAWIEK TLEEGRKRGY VETLFGRRRY VPDLNARVKS VREAAERMAF NMPVQGTAAD LMKLAMVKLF PRLREMGARM LLQVANELLL EAPQARAEEV AALAKEAMEK AYPLAVPLEV EVGMGEDWLS AKGHHHHHH 839

<212> Type : PRT <211> Length : 839

SequenceName : 2809 SequenceDescription :

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<213> OrganismName : Artificial Sequence <400> PreSequenceString : atgaattcgg aggcgatgct gccctcttt gagcccaagg gccgggtcct cctggtggac ggccaccacc tggcctaccg caccttcttt gccctgaagg gcctcaccac cagccggggg 120 gagccggtgc aggcggtcta cggcttcgcc aagagcctcc tcaaggccct cagagaggac 180 ggggacgcgg tgatcgtggt ctttgacgcc gaggccccct ccttccgcca cgaggcctac 240 ggggggtaca aggcgggccg ggccccacg ccggaggact ttccccggca actcgccctc 300 atcaaggagc tggtggacct cetggggttc acgcgcctcg aggtcccggg ctacgaggcg gacgacgtcc tggccaccct ggccaagaag gcggaaaagg agggctacga ggtccgcatc ctcaccgccg acaaagacct ttaccagctc ctttccgacc gcatccacgt cctccacccc gaggggtacc tcatcacccc ggcctggctt tgggaaaagt acggcctgag gcccgaccag 540 tgggccgact accggggcct gaccggggac gagtccgaca accttcccgg ggtcaagggc 600 ateggggaga agaeggeget caagettetg gaggagtggg ggageetgga ageeeteete aagaacctgg accggctgaa gcccgccatc cgggagaaga tcctggccca catggacgat 720 ctgaagetet cetgggacet ggecaaggtg cgcaccgace tgcccetgga ggtggactte 780 gccaaaaggc gggagcccga ccgggagggg cttaaggcct ttctggagag gcttgagttt 840 ggcagcetee tecaegagtt eggeettetg ggaggggaga ageeeeggga ggaggeeeee 900 tggcccccgc cggaaggggc cttcgtgggc tttgtgcttt cccgcaagga gcccatgtgg 960 gccgatcttc tggccctggc cgcctgcagg ggcggccgcg tgcaccgggc agcagacccc 1020 ttggcggggc taaaggacct caaggaggtc cggggcctcc tcgccaagga cctcgccgtc 1080 ttggcctcga gggagggct agacctcgtg cccggggacg accccatgct cctcgcctac 1140 ctcctgggcc cctcgaacac caccccgag ggggtggcgc ggcgctacgg gggggagtgg 1200 acggaggacg ccgcccaccg ggccctcctc tcggagaggc tccatcggaa cctccttaag 1260 cgcctcgagg gggaggagaa gctcctttgg ctctaccacg aggtggaaaa gcccctctcc 1320 egggteetgg eccatatgga ggeeaeeggg gtaeggetgg aegtggeeta eetteaggee 1380 ctttccctgg agcttgcgga ggagatccgc cgcctcgagg aggaggtctt ccgcttggcg 1440 ggccacccct tcaacctcaa ctcccgggac cagctggaaa gggtgctctt tgacgagctt 1500 aggetteecg cettgaagaa gacgaagaag acaggeaage geteeaceag egeegeggtg ctggaggccc tacgggaggc ccaccccatc gtggagaaga tcctccagca ccgggagctc 1620

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Custom Codon

Sequence Name : 2810

<211> Length : 2520

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WADYRALTGD ESDNLPGVKG IGEKTALKLL EEWGSLEALL KNLDRLKPAI REKILAHMDD
240
LKLSWDLAKV RTDLPLEVDF AKRREPDREG LKAFLERLEF GSLLHEFGLL GGEKPREEAP
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WPPPEGAFVG FVLSRKEPMW ADLLALAACR GGRVHRAADP LAGLKDLKEV RGLLAKDLAV
360
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420
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<212> Type : PRT <211> Length : 840

840

SequenceName : 2811 SequenceDescription :

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 Custom Codon
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 Sequence Name : 2812
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GDAVIVVFDA EAPSFRHEAY GGYKAGRAPT PEDFPRQLAL IKELVDLLGF TRLEVPGYEA

<213> OrganismName : Artificial Sequence

<400> PreSequenceString :

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LKLSWDLAKV RTDLPLEVDF AKRREPDREG LKAFLERLEF GSLLHEFGLL GGEKPREEAP
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WPPPEGAFVG FVLSRKEPMW ADLLALAACR GGRVHRAADP LAGLKDLKEV RGLLAKDLAV
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GHPFNLNSRD QLERVLFDEL RLPALKKTKK TGKRSTSAAV LEALREAHPI VEKILQHREL
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TKLKNTYVDP LPSLVHPRTG RLHTRFNQTA TATGRLSSSD PNLQNIPVRT PLGQRIRRAF
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720
YVETLFGRRR YVPDLNARVK SVREAAERMA FNMPVQGTAA DLMKLAMVKL FPRLREMGAR
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<212> Type : PRT <211> Length : 840

SequenceName : 2813 SequenceDescription :

Sequence

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